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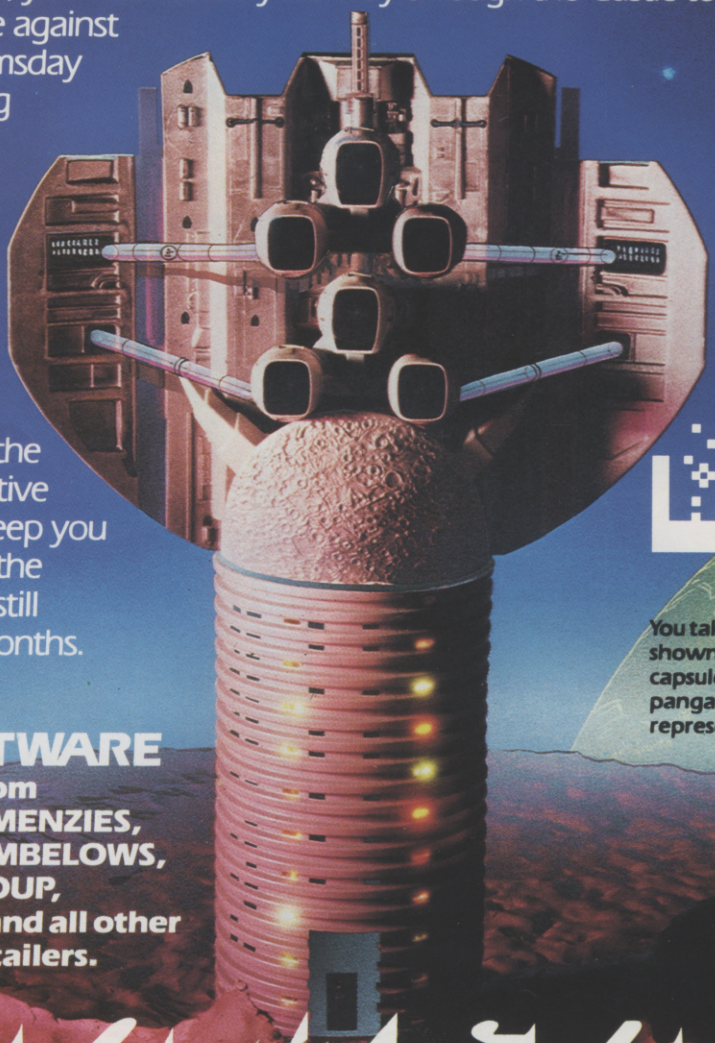

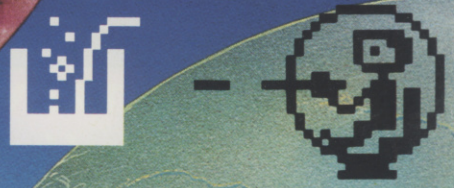

You take on the role of our super hero ZIGGY shown here above in his exploratory capsule in combat with an Urk disguised as a pangalactic gargleblaster (!!) This is a true representation of the on-screen graphics.

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PERSONAL COMPUTER GAMES: MARCH 1984

WELCOME TO OUR PULSATING MARCH ISSUE!

You have in front of you the best possible means of keeping in touch with the flood of computer games being released.

If you're a newcomer to micro games you should turn first to page 36. And if you're already into programming, make sure you read Jeff Minter's exclusive article on page 115. It's brilliant — and so are you, for buying the mag everyone's talking about.

33 £1000 COMPETITION Spectrum, BBC, Electron, CBM 64, Vic 20, Dragon. Win one of SEVENTY double-cassette game packs for these micros simply by writing a riddle!

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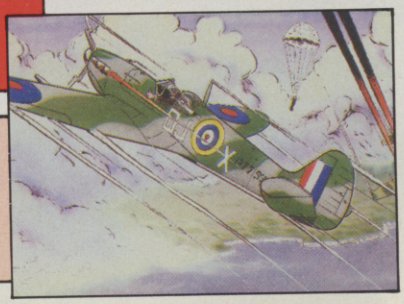

120 FREE LISTINGS

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DRAGON *Blaster*, an all-action space program
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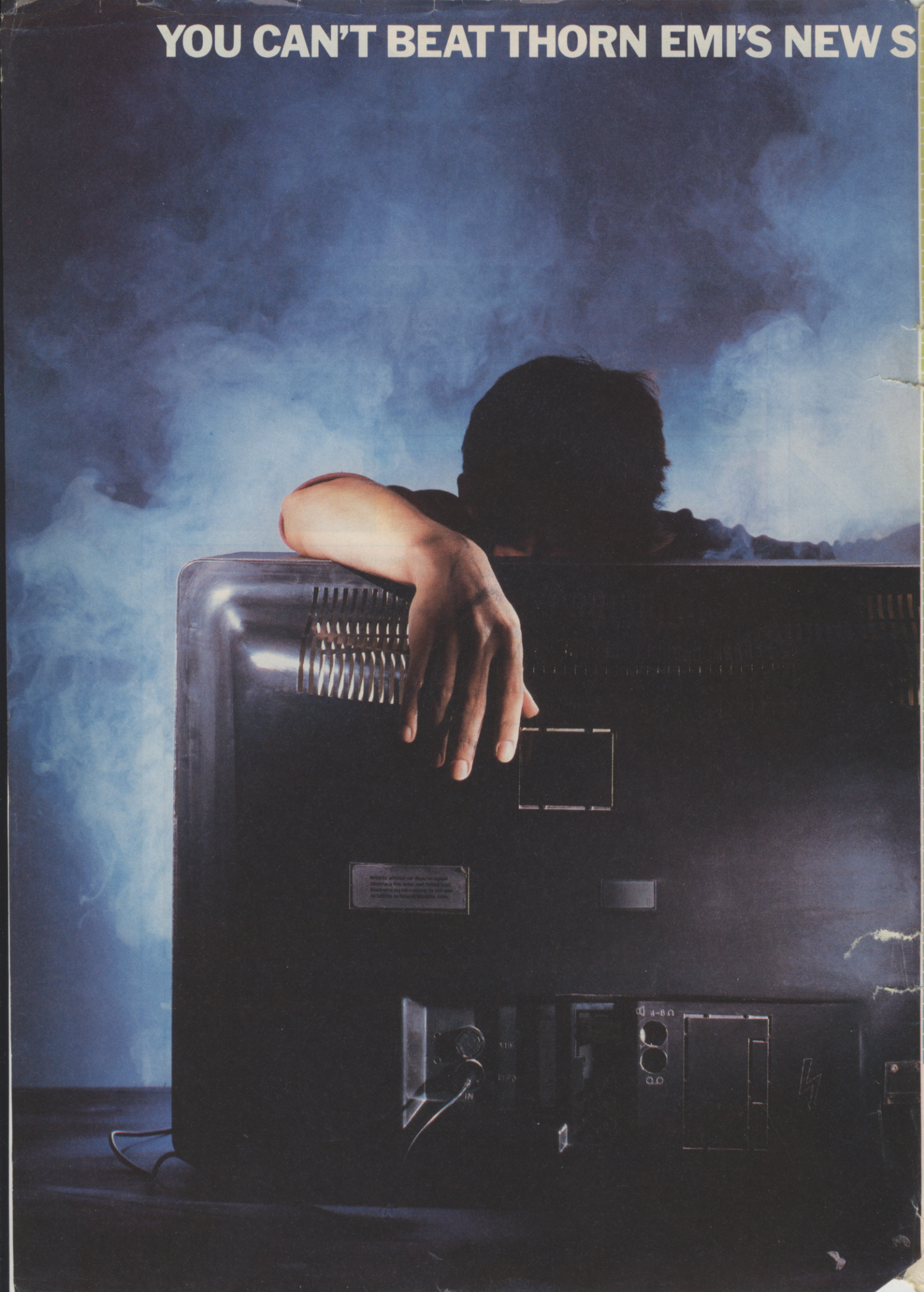
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In "Road Racer" (on 16k) you'll find out if you're skilful enough to drive round a terrifying track at death defying speeds, and reach the black and white flag in one piece.

"Gold Rush" (on 16k) is no walk-over either. Underneath the eerie planet of Oron is a vast cavern full of gold and demons.

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In "Blockade Runner" (on 16k) the earth is under siege and you must get life-saving supplies through.

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"River Rescue" (on 48k) is a runaway success on other formats. It's now available on Spectrum. You'll have to navigate the wildest and most dangerous river on earth in a powerful patrol-boat. But keep a sharp look-out for the killer crocodiles. They haven't eaten all day.

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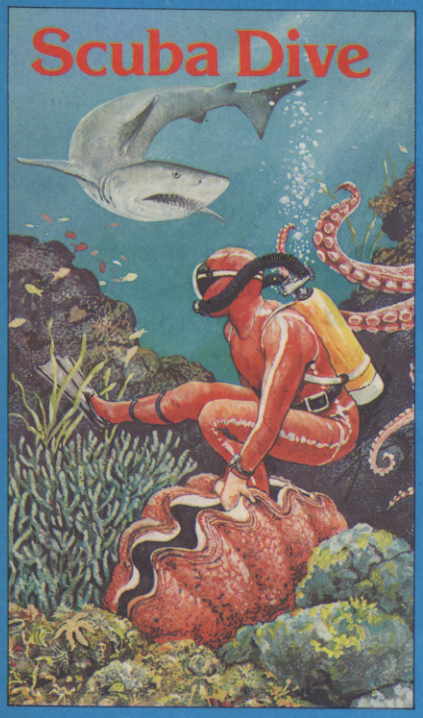
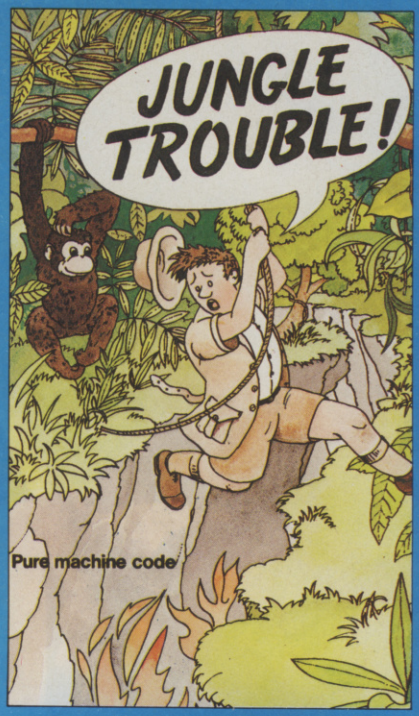
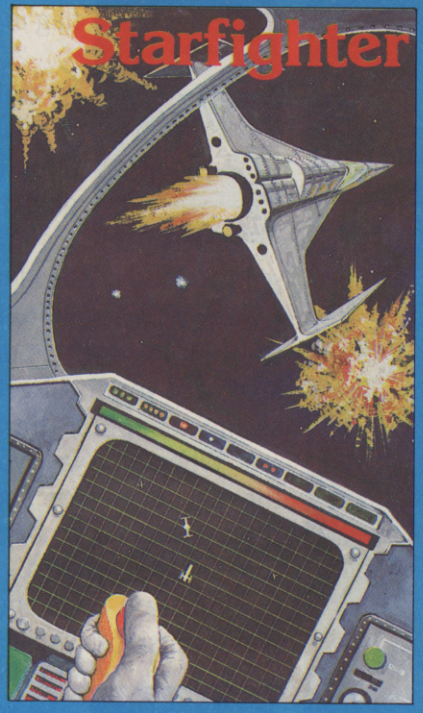


Spectrum 48k
Oric 16-48k
Commodore 64

Spectrum 16-48k
Oric 16-48k
Commodore 64, Atari



Spectrum 16-48k



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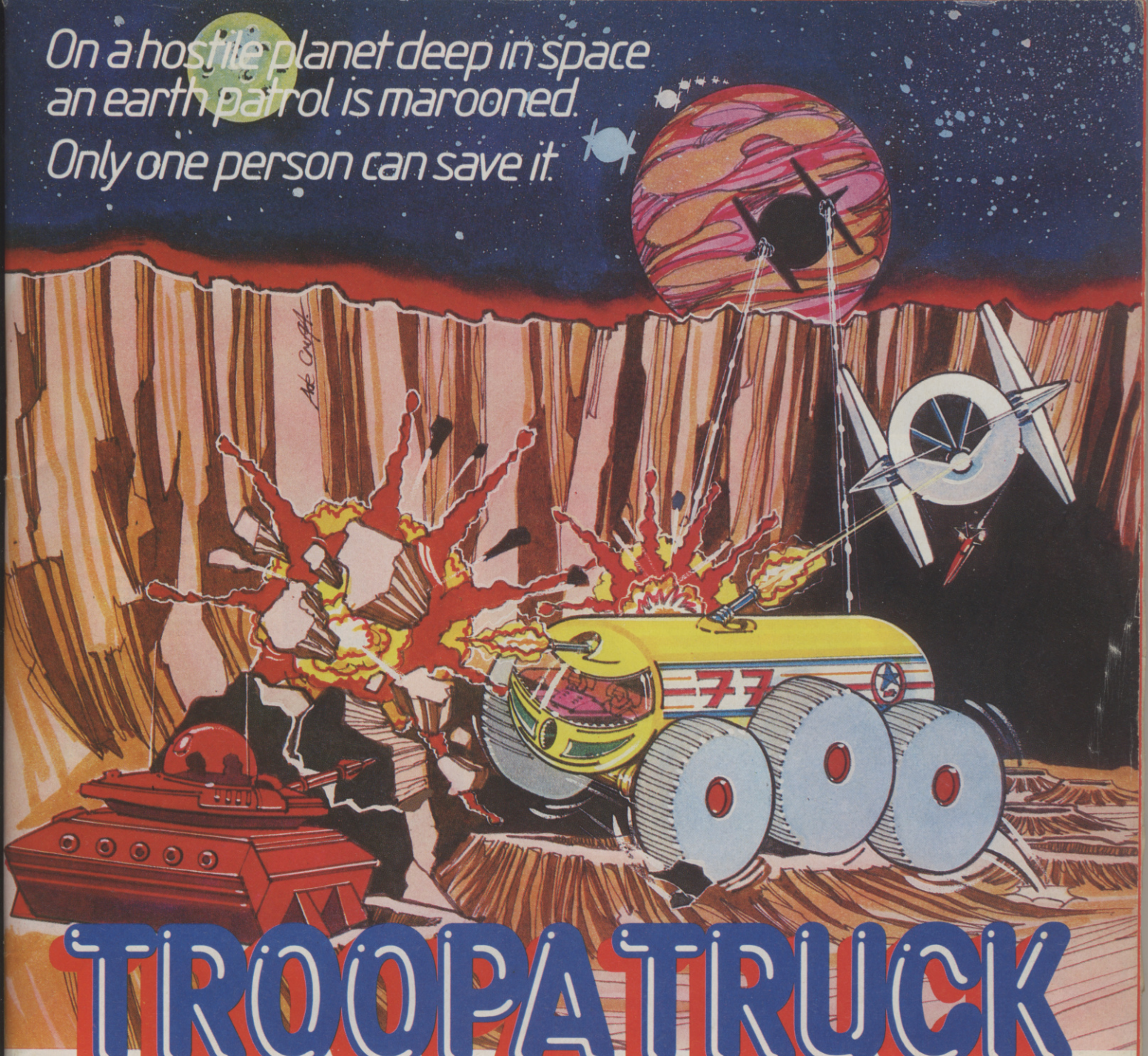

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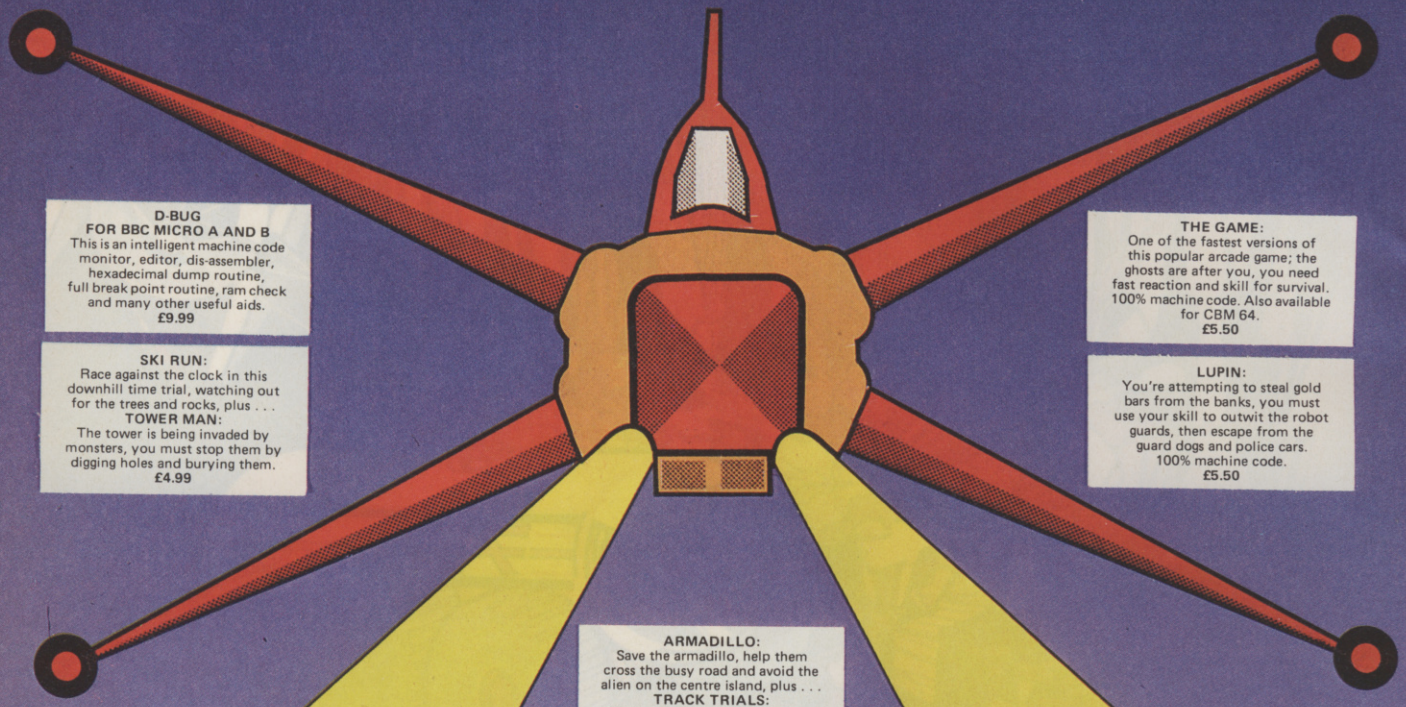

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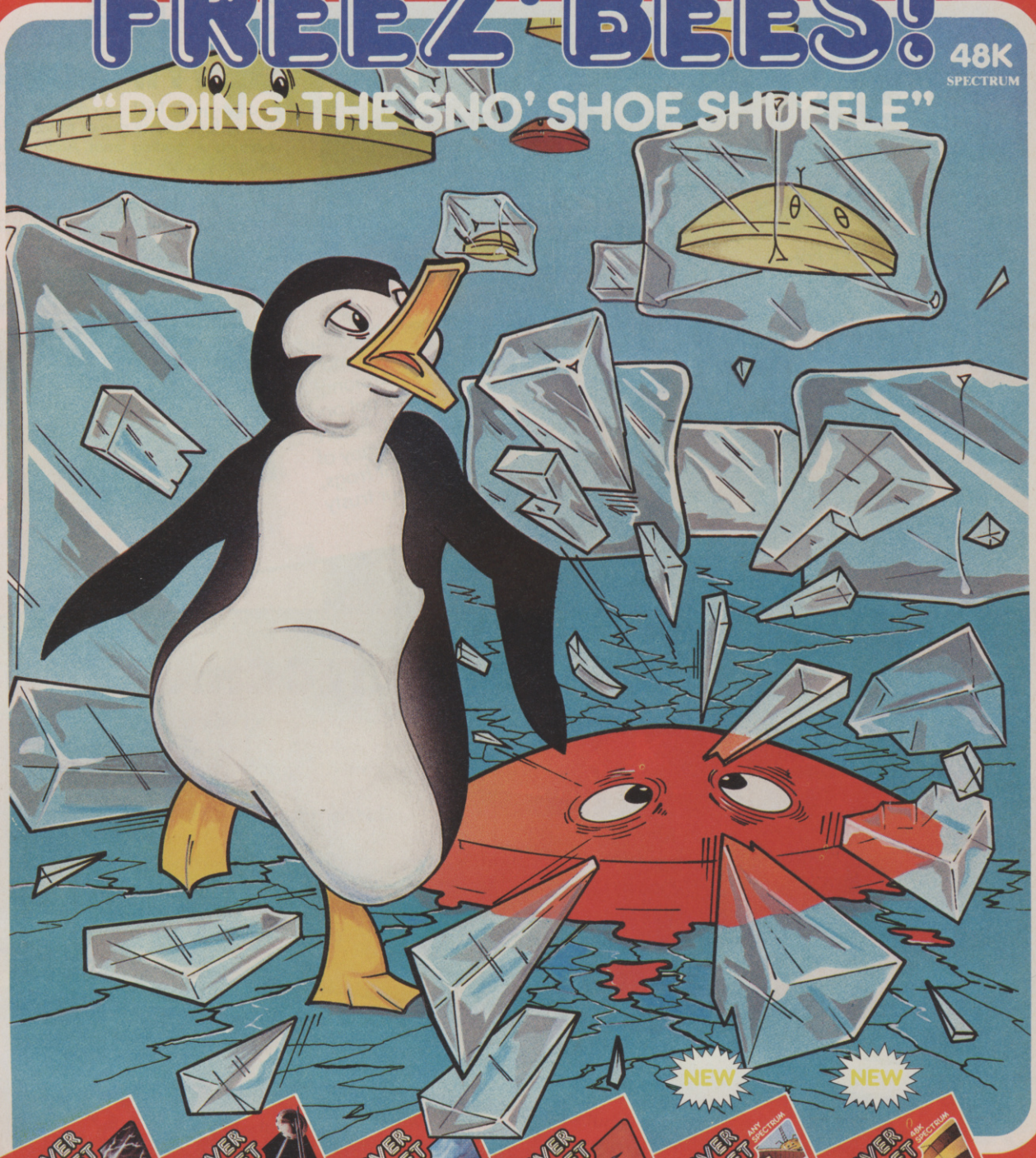

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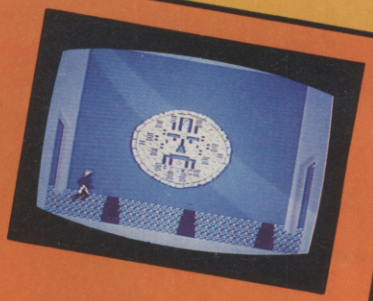
Forbidden Forest is more of a quest than just a game! The action takes place in a four dimensional scrolling forest landscape which many have entered, but none has returned. Yes, I did say FOUR dimensional - day fades into night as the action unfolds! The quest is to seek out and destroy the Demogorgon, mystic ruler of the Forbidden Forest. Before you can even set eyes on him you will have to contend with his army of fearsome creatures, including mutant spiders, showers of giant frogs, snakes, dragons, skeleton soldiers and more! You have only your trusty bow and arrows to depend on!



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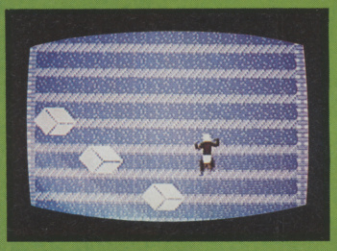

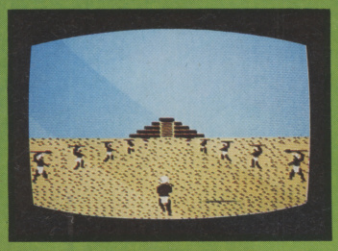

AZTEC CHALLENGE

A challenge on an epic scale! Aztec Challenge takes you on a journey to Mexico and the ancient pyramid of Tenochtitlan. The ancient Aztec gods and their devotees have ensured that no ordinary human can learn the secrets of the temple and live to tell the tale. The pyramid is protected by all manner of treacherous traps and hidden perils - an epic test of your courage and cunning. Aztec Challenge features no less than seven totally different screens - here are just three of them - each of which presents a brand new challenge. We hope your joystick can stand up to it!

*

SLINKY

Slinky, the spring, was having fun hopping about when suddenly he came upon a pile of coloured blocks, so he thought he'd play around on them for a while. Much to his amazement he found that they changed colour when he landed on them. Wow! But unknown to him, the blocks belonged to the Wicked Wizard, who sent his friends along to tease our poor hero. Slinky is a real fun package with ninety-nine levels, amazing reward displays, and action replays. Where else could you meet such charming characters as Dusty the dust cloud, Marge the magnet, Ralph the random raindrop, and Lorenzo the chameleon hopper?

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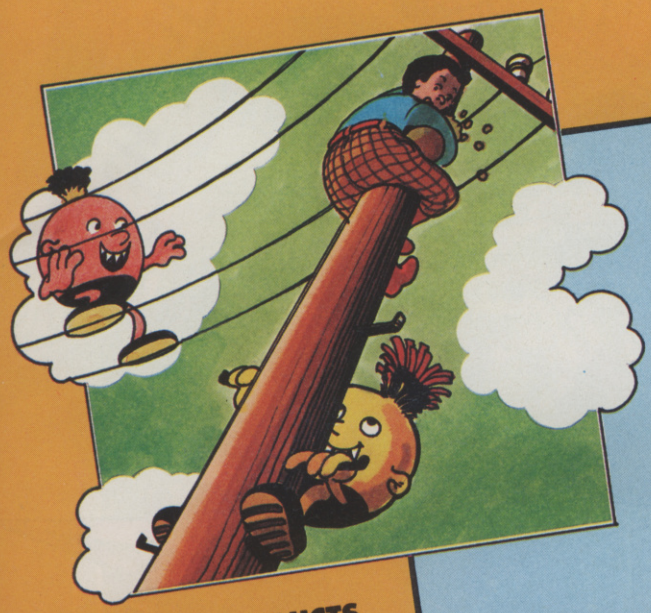
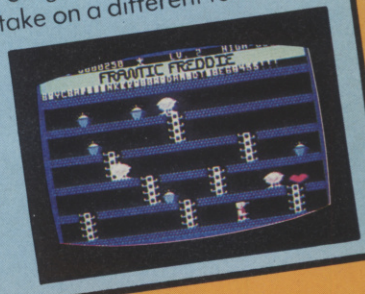


FRANTIC FREDDIE

Frantic Freddie is fun all the way! Played to an unbelievable soundtrack of brilliantly arranged tunes, Frantic Freddie contains all the ingredients that make a game into a classic! Freddie is a telephone line engineer who has to climb up and down the telegraph poles, picking up pots of gold and avoiding the dreaded Greeblies. The Greeblies take on a different form with every new screeen, but one thing's for sure - they may look cute, but they show no mercy! Frantic Freddie also features wacky messages, funny interludes and silly bonuses. Frantic Freddie - a game with a sense of humour!



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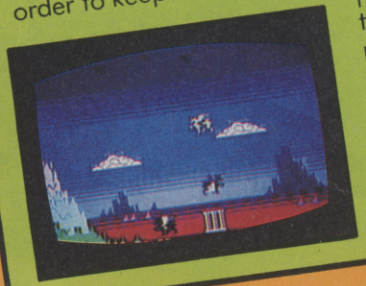

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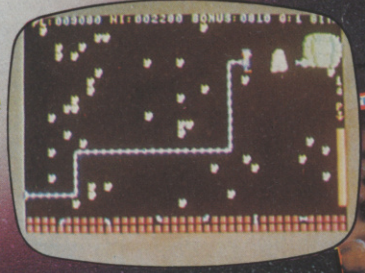

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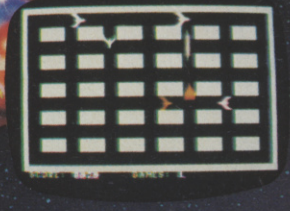

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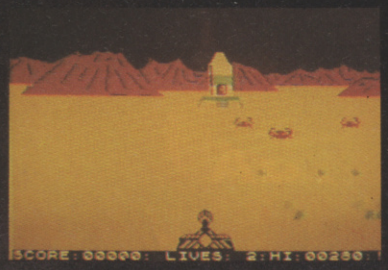

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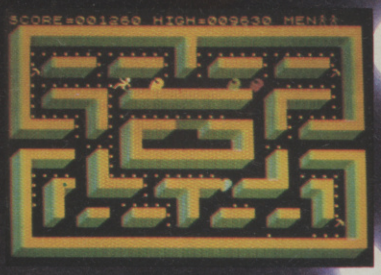

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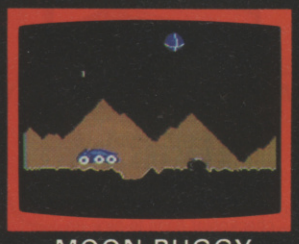

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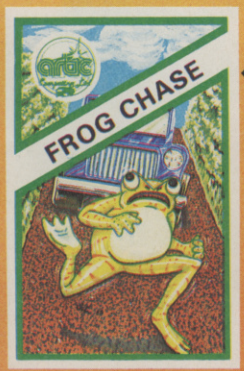

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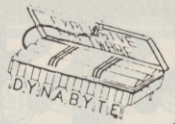

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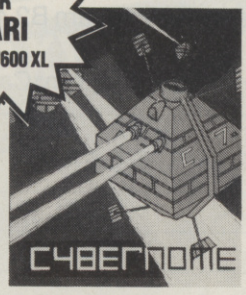

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This was exactly as intended but unfortunately *something went wrong*. During the programming strange uncomplimentary messages began to appear on the screen. At first they were so few they were not taken too seriously, but soon they could no longer be ignored. Somehow the Spectrum had been given a personality — a rather devious, supercilious, dislikeable, hateful, horrible mind.

Side B contains a version of the game compatible with the excellent Currah µSpeech unit — even worse!!

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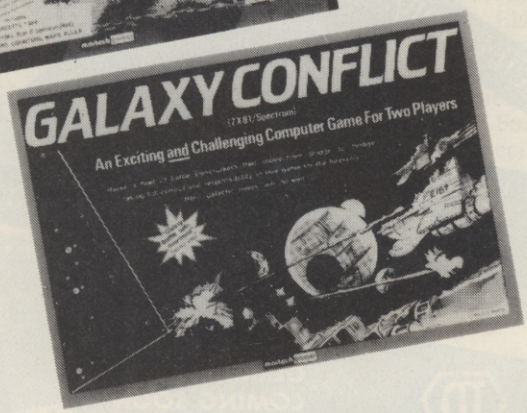

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WINTER BEEB SHOW

Seventy exhibitors drew over 20,000 visitors to the December BBC Micro User show at the Westminster Exhibition Hall.

Some of the major software houses were notable by their absence, preferring to let their dealers do the selling. Acornsoft was sadly missed, and Program-Power was demonstrating only, though software from both companies was available at other stalls.

Alligata was showing *Dambuster*, which was a star of the show along with Software Invasion's new 3D space game *Vortex*.

The success of the show has prompted organizers Database Publications to hold a further five shows in 1984, one in Manchester and four in London.

The next exhibition runs from 29 March to 1 April, 1984 at the Westminster venue. Further details from Database on 061-456 8383.

Fast pictures

If you get fed up waiting for the graphics to draw during your favourite adventure game, you may be interested in a new release for the Spectrum from Phipps Associates.

Their game *Colditz* features special machine code routines that draw the pics in under a quarter of a second.

Phipps Associates are also bringing out four new arcade games, including a Kong derivative called *Killer Knight* that features some attractive innovations. The programs cost £5.95.

US game prices cut

Prices of top-selling American programs for the Commodore 64 and Atari computers have been slashed in a bold marketing move which spells good news for British buyers.

Zaxxon, the arcade favourite from Datasoft which has been at the top of the US charts for the past year, has come down in price from a hefty £29.95 to £14.95 making it great value for the Atari computers. For the Commodore 64, *Pooyan* and *O'Riley's Mine*, also from Datasoft, are available at the same price.

How have Centresoft, the British distributors, managed it? Geoff Brown explained from the company's Birmingham offices that it had been done by persuading the American manufacturers to take a cut in their profit margin in order to increase sales. 'The products have been re-packaged to make retailing easier and to cut costs.'

Also in the shops from Centresoft are three programs by US company Cosmi: *Caverns of Khafka* and *Slinky* for the Atari, and *Forbidden Forest* for the Commodore 64, all three retailing at £9.95.

Does this mean that all imported software will now tumble in price? Geoff Brown thinks it does. 'I'm sure everyone will follow suit,' he says.

ELAN GAMES ON THE WAY

The Elan Enterprise, due to be launched at the end of April, looks set to become the best new games machine of 1984.

With the Sinclair QL promising to corner the low-cost business/applications market, Elan have been quick to turn their attention to the home games player, and close links with Intelligent Software have given the machine a firm footing in the software industry.

Keith Elliott of Intelligent has been canvassing program houses on Elan's behalf, and details of the operating system are already in the hands of games programmers across the country. Delivery of pre-production models is under way.

According to Elliott, software houses have given the Elan specification an enthusiastic welcome. He is also understandably pleased that Sinclair have moved up-market: 'It gives us a very clear run,' he said.

Software to be released at the same time as the machine includes three adventures and a program to convert listings in BBC and Spectrum Basic to run on the machine with little or no modification.

Machine code program for these machines may also be converted using a similar program being considered for release at the end of this year.

Alan Maton, director of Software Projects (distributors of Manic Miner) was quick to endorse the machine's potential: 'I think it's going to be a wonderful machine, and obviously there's one program that must go on it ...'. Other companies looking at the Elan include Imagine, Mikro-Gen, and Ultimate.

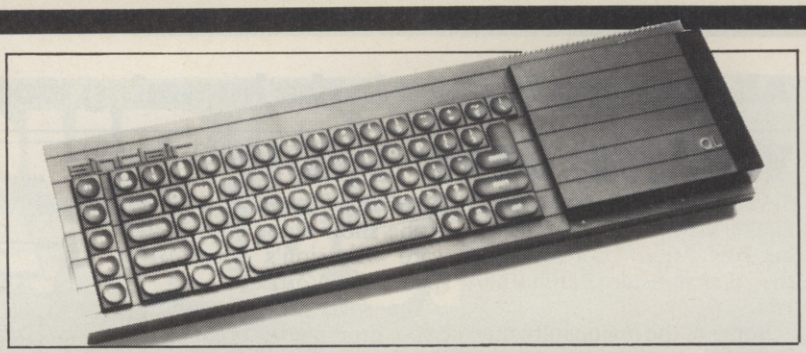
Elan claim that the machine is still on schedule for its April launch. Supplies will initially be limited, and the company will be aiming to build up stocks for next Christmas in addition to meeting current demand.

For an 8-bit computer the Elan offers an impressive specification perfectly tailored to meet the games player's requirements.

The basic machine comes with 64K RAM, built-in joystick, stereophonic sound, and excellent graphics capabilities. A 128K model is scheduled for release in July.

Sinclair QL:

Business only?



Games software houses are fighting shy of the new Sinclair QL, despite its impressive specification.

A spokesman for Ultimate, producers of *Atic Atac* and *Jet Pac*, echoed the feelings of other companies by pointing out that the average family will have difficulty in meeting the £400 price-tag. Concern has also been expressed about the reliability of the micro-drive units.

The only software house which said it was definitely producing games for the QL was Psion, which put together the utility packages supplied with the machine.

Even so, because of limited time and resources, it is unlikely that any Psion games will become available before the end of the year.

The QL lacks the comprehensive sound facilities of machines like the Oric and Commodore 64, offering the user nothing more than an enhanced BEEP command. With the increasing role played by sound in games software this may be a disincentive to some programmers.

The QL does however offer excellent opportunities to adventure programmers. With 512 x 256 graphics resolution, multi-tasking and multi-window capabilities, and two built-in microdrives, the machine could not only display different locations in different parts of the screen simultaneously, but also give you a graphic and text description of what was happening in each place.

The 128K of RAM can be increased simply by plugging in the half-megabyte expansion cartridge, thereby providing enough memory for adventures of truly mind-boggling proportions.

The processor used by the QL offers a ray of hope to arcade addicts, since it is the same processor as that used by some software houses to develop games for 8-bit machines like the Spectrum and the Commodore 64. Imagine Software in particular used the 68000 to bring us games like *Alchemist* and *Zzoom* for the Spectrum, and they may well be tempted to use the expertise that they have gained on the 68000 to put out games for the QL.

Pirate software

Elephant's new release *Kosmik Pirate* is a new departure for the company.

Rather than their usual puzzle software this program is a mixture of shoot'em-up and strategy. As captain of 'Red Beard 2' you maraud through space seeking loot.

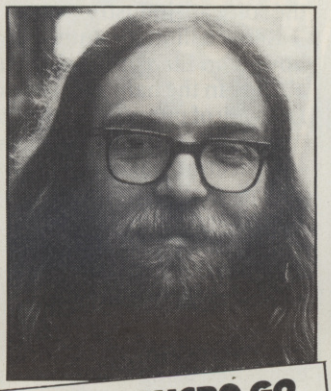
The problem is in controlling the potentially mutinous crew. There is also the little matter of a malfunctioning navigation computer. The game costs £5.95.

BBC Correction

The listing of the program *Galaxians* for the BBC published in the February issue of *Personal Computer Games* was printed with part of line 1050 missing. The line should read:

```
1050IF INKEY$(1000)="" THEN GOTO 1050 ELSE RETURN
```

We're really sorry about this error. However, it won't have affected people who loaded the same program off the cover flexi-disk.



£1,000 MICRO GO PRIZE WINNER

A freelance micro programmer from Swindon has become the first 'champion computer *Go* player of the world.'

That title and a cheque for £1,000 were bestowed on 29-year-old Bronislaw Przybyla when his program to play the oriental board game beat seven others in a tournament sponsored by Acornsoft in London last weekend.

No such tournament has been held anywhere in the world before, even in Japan where the game is played by over 10 million people.

In Japan Przybyla's *Go* strength would put him among the nobodies, but here his programming expertise paid off, confirming what has been found in computer chess: programming ability counts more than games ability.

He wrote his program entirely in Basic on an Oric before converting it to a BBC Micro as required for the tournament. On the BBC machine he was also able to take advantage of recursion and the very fast Basic to produce a speedy program that surprised human *Go* players with the quality of its play.

But it will be a long time before it can seriously challenge humans who have played more than a handful of games; and in any case Acornsoft, who have decided to move more seriously but cautiously into the intelligent games market, will not be publishing the program for at least a year.

When, and if, it does appear it will include a demonstration and instruction module for new players.

STOP PRESS

Amazing games exhibition!

A terrific games exhibition is being sponsored by *Personal Computer Games* for the Easter weekend.

It's to be held at the Solihull Conference Centre on Friday, Saturday and Sunday, April 20–22. Dozens of program companies will be demonstrating their latest games, and there'll be stacks of prizes and unbeatable offers.

The place will also be packed with celebrities because on the Saturday the Radio One Music Marathon is being broadcast live from the exhibition hall. It promises to be an unforgettable occasion. Full details next issue.

Bug-Byte's new *Miner*

Bug-Byte hope to have a replacement for *Manic Miner* in the shops by early spring. The program, to be called *Matty Goes Mining*, will be a multi-level game for the Commodore 64.

Nasty things will happen to Cabbage Patch Dolls and many well-known figures in the computer industry will be lampooned. The program is written by Wayne Quinn, who is not a Hollywood cowboy star but a 16-year-old Liverpudlian.

Search hots up for game of 1983

A group of judges is faced this month with the near-impossible task of naming the 1983 game-of-the-year.

The award is one of 10 being sponsored by the *Sunday Times* and VNU, publishers of Personal Computer Games.

The three games which PCG has nominated for the title are *Pssst!* from Ultimate Play the Game, *Manic Miner* from Software Projects and *Planetoid* from Acornsoft.

Pssst! was chosen because of Ultimate's famous graphics. We thought that in terms of originality and fun, it just beat the other Ultimate contenders such as *Cookie* and *Jet Pac.* (The latest Ultimate games are ineligible because the competition is limited to titles on sale before November 1, 1983.)

Manic Miner more or less selected itself as about the most entertaining, action-packed game around last year.

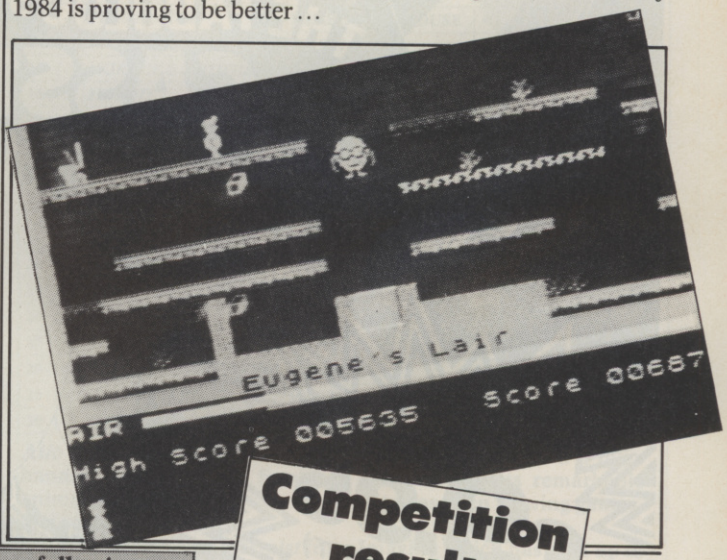
The third choice was less easy. But Acornsoft have come up with a large series of excellent copies of the best arcade games. We decided one should be included, and since *Defender* is everyone's (well almost everyone's) favourite space game, that left us with the BBC version *Planetoid.*

Other nominations which the judges will consider are the year's innovative adventure games, *Valhalla* and *The Hobbit*, *Ant Attack* from Quicksilva, and *Zzoom* from Imagine.

One game which we would like to have nominated is the remarkable *Scrabble* simulation from Psion. Unfortunately it's ineligible because a VNU employee was involved in writing it!

The winner of the award will be announced on March 28 at a ceremony in London's Royal Garden Hotel. The winner will be presented with a special Personal Computer Games trophy.

All in all 1983 was a remarkable year for games. Yet already 1984 is proving to be better ...



WHISPERING HORACE

I am becoming increasingly worried by the distressing habit of putting programmers' pictures on cassette sleeves. First we had to look at the unsavoury Virgin mob and I find, to my horror, that there is a photo of a wild-eyed bearded fanatic staring at me from the cover of *Stonkers.* The caption says this man is called 'John Gibson', but I have my doubts.

No sooner had I recovered from this shock than I was confronted by the same grisly features, in the company of three other humanoid programmers, in a full-page advert for Imagine.

It really is most upsetting. Where is it all going to end? Must we wait until some sensitive young soul is dragged away from his machine, screaming in terror, before software houses realize their responsibilities?

'Software portability' takes on a new meaning with a seasonal offering from SoftSpot.

Having failed in their efforts to launch the game *Santa Claus* in time for the Christmas market, they're bringing it out now – as *Easter Bunny*...

I hear that a number of gentlemen currently housed at Her Majesty's expense have been making an important contribution to the games software industry. At Wormwood Scrubs they wrap, catalogue, and pack the cassettes for Rabbit Software.

This company appears to have a strong hold over the unfortunate inmates, some of whom have backgrounds of extreme violence. "They'll do anything we want them to," said Rabbit's Terry Grant menacingly.

Other software houses should immediately take out life insurance.

What on EARTH is going on up at Imagine? Whispers have reached me that so-called star programmer Eugene Evans (one-time claimed income £40,000 a year) left the company in a huff to start his own software house – and then limped back two weeks later to rejoin, and complete his current game *Psyclapse.*

'Well,' I asked him, 'did you leave?'

'I may have done,' he said. 'There again, I may just have gone on holiday.'

John Phillips of Bug-byte has been screaming in fury at me following our suggestion last month that former Bug-byte colleague Alan Maton had been promoted to marketing manager before leaving to set up his own software house. You see, John himself is marketing manager, and as for Alan: 'He was promoted from jiffy bag packer to slightly older jiffy bag packer. That's all.'

I of course hastened to pass on to Alan this devastating statement. 'I've never packed a jiffy bag in my life,' he told me.

'But I'll say this. If John Phillips came up here and asked for a job I wouldn't give him one. We've risen above all his childish histrionics.' Wonderful to see such a spirit of friendship and cooperation abounding.

I hear from Taunton-based software house Durell what agonies they went through in trying to choose their name. After much soul-searching they narrowed the field down to two. One of them, Durell, was finally agreed on – it's founder Robert White's middle name, nothing to do with Superman's dad. The other name, only just rejected, was Wobblesoft!

Competition result

The winner of the competition in our December/January issue is 14-year-old **Graham Simmons** of Amersham, Bucks.

He picks up a complete £1,000 Colour Genie system including portable colour TV, cassette recorder and disk drive.

We'll print answers to the competition clues in next month's issue.

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ALL THE SNAPPIEST LETTERS...

Write to: Byte-back, *Personal Computer Games*, Evelyn House, 62 Oxford Street, London W1A 2HG

BBC vs Spectrum

I have heard rumours that the BBC version of *The Hobbit* does not contain graphics displays. I cannot understand this as the BBC graphics facilities are just as good, if not better (I say no more for fear of starting a war) than the Spectrum's.

Also, is there a version of *Pole Position* appearing from AtariSoft for the BBC?

Mark Pulletz, Northfield, Somerton.

There are no pictures in the BBC Hobbit due to the fact that it has only two-thirds as much memory as the 48K Spectrum.

AtariSoft tell us they hope that Pole Position will be appearing for the BBC by the beginning of May.

TAKE ON THE PCG CHALLENGE

You're right in calling *Lunar Jetman* for the Spectrum a 'hit' (Feb issue). The game's terrific. But you're wrong to say the detachable weapons system is a red herring.

Although you can't use it to destroy alien bases, it does help you get a big score very quickly. I can prove it – I've scored 95,240 which is far higher than anyone else around here.

Peter Muldate, Bristol.

That's a dangerous claim, my friend. We reckon the nation's game-experts are becoming so talented that your score won't survive a week – even in Bristol.

But here's a challenge to everyone. If you think you're the bee's knees at some computer game, why not let us know by sending in this form?

Anyone who fancies sending in an inflated score should be warned that here at PCG *we have a dark mysterious room called the 'Challenge Chamber'. People claiming mammoth game scores may be asked to visit us and enter the chamber where they will have to demonstrate their prowess.*

High-scorers will achieve nationwide fame. But abject failures may find themselves spread across our pages as 'Wally of the Month'. You have been warned. Now send us your top scores.

OK – I'll dare the Challenge Chamber

Name .....

Address .....

Telephone no. (if possible) .....

Game ..... **Machine** .....

My record score is: ..... **scored on (date)** .....

in a game lasting ..... **mins** ..... **secs.**

Signed .....

Here are my tips for playing this game well.

.....

(This portion to be filled in by witness)

Name .....

Address .....

Telephone no. (if possible) .....

Occupation .....

I confirm that the above claimed score is genuine.

Signed .....

Post this form to Challenge Chamber, Personal Computer Games, Evelyn House, 62 Oxford Street, London W1A 2HG.

Zalaga fans fight back

Why is SC so unenthusiastic about *Zalaga*? Why does it only get a rating of 7 for lasting interest? Doesn't he like a good megazap? *Zalaga*'s got to be just about the best shoot-em-up this century. All my friends agree that it's almost impossible to stop playing. Sound and graphics are superb and the feeling when you get an extra ship is incomparable.

So give SC a holiday and get somebody who can recognize a classic when he sees it.

Adam Wardman, Harlow, Essex

Steve Cooke replies: If you look through the mag you'll see that there aren't many games for the BBC with an overall rating of 7 or more. So a rating of 7 for lasting interest is hardly 'unenthusiastic'! Still, I'm glad that Earth's defences have not relaxed in the fight against the Galaxian invaders.

PCG SOFT HITS

THIS MONTH	LAST MONTH	•GAME TITLE	•PUBLISHER	SPECTRUM	VIC 20	CBM 64	BBC	ATARI	DRAGON	ORIC	OTHER
1	(1)	*ATIC ATAC*	ULTIMATE	•							
2	(6)	*MANIC MINER*	BUGBYTE/SOFTWARE	•		•					
3	(9)	*3D ANT ATTACK*	QUICKSILVA	•							
4	(–)	*ALCHEMIST*	IMAGINE	•							
5	(3)	*LUNAR JET MAN*	ULTIMATE	•							
6	(–)	*CHEQUERED FLAG*	PSION	•							
7	(2)	*VALHALLA*	LEGEND	•							
8	(17)	*KONG*	OCEAN	•							
9	(–)	*DELTA CHASE*	MICROMEGA	•							
10	(30)	*PYRAMID*	FANTASY	•							
11	(–)	*MR. WIMPEY*	OCEAN	•							
12	(4)	*SPLAT!*	INCENTIVE	•							
13	(8)	*JET PAC*	ULTIMATE	•	•						
14	(–)	*POOL*	CDS	•							
15	(–)	*PENETRATOR*	MELBOURNE HOUSE	•							
16	(7)	*FLIGHT*	PSION	•							
17	(–)	*HORACE & SPIDERS*	PSION/MELBOURNE	•							
18	(5)	*HOBBIT*	MELBOURNE HOUSE	•		•	•			•	
19	(13)	*METAGALATIC LLAMAS*	LLAMA SOFT			•					
20	(–)	*SNOOKER*	VISIONS	•	•	•	•				
21	(–)	*FALCON PATROL*	VIRGIN			•					
22	(29)	*HUNTER KILLER*	PROTEK	•							
23	(–)	*3D DIMENSION DESTRUCTORS*	ARTIC	•							
24	(–)	*HUNCHBACK*	OCEAN	•		•					
25	(–)	*OMEGA RUN*	COMPUTER RENTALS	•							
26	(–)	*KRAKATOA*	ABBEX	•							
27	(–)	*ROMMELS REVENGE*	CRYSTAL	•							
28	(12)	*ARCADIA*	IMAGINE	•	•	•					
29	(21)	*HARRIER ATTACK*	MARTECH/DURELL	•						•	
30	(–)	*DARE DEVIL DENNIS*	VISIONS				•				

***Atic Atac*, the game in which you have to escape from a huge haunted castle, is still firmly at number one. Its remarkable animated graphics and vast complexity has been wowing gamesters across the country.**

But look out for *Alchemist* from Imagine which has shot up to number four from nowhere. We'll review it next issue.

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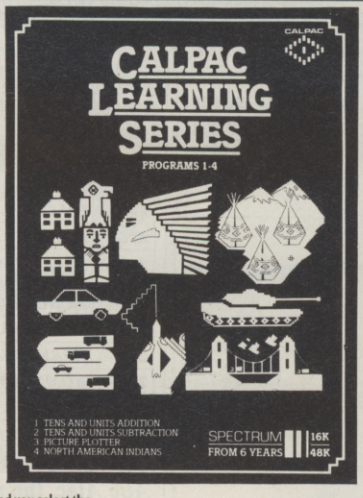
2. TENS AND UNITS SUBTRACTION. Choose simple or difficult sums. Either of the two methods of subtraction taught in schools may be selected at the start of the program. Detailed help is given if errors are made. Correct answers add sections to a bridge. If no mistakes are made, the tank will drive across the completed bridge and fire its gun.
3. PICTURE PLOTTER. This program has been written so that children can create their own pictures on the television screen. It is so simple that even pre-reading children can use it, yet its sophistication makes it suitable for producing multicolour maps and diagrams.
4. NORTH AMERICAN INDIANS. This program helps to develop reading and comprehensive skills. You complete sentences using a word from the list on the screen. Correct responses are rewarded by the creation of an Indian scene which includes tipis and buffalo. You may replace the questions in this program with your own (create a bank of up to 250 questions with a 48K Spectrum). Any subject area may be chosen,



VOL 3 – PROGRAMS 4-12

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PCG 3/84

At 18, star-programmer Matthew Smith says he's over the hill.
Peter Connor, 27, takes notes and worries about his pension.

MATTHEW SMITH
THE MINER DESIGNER

When I arrived at Liverpool's Lime Street Station one grey December afternoon in 1983 the first thing I noticed about Matthew Smith was that he wasn't wearing any socks. Hadn't he earned anything from writing the top-selling Spectrum game *Manic Miner*? Couldn't he afford socks?

As I later found out, my worries were unfounded; he certainly had made some money. But Matthew is not the whizz-kid breed of programmer, the adolescent brat who trades in his push-bike for a Ferrari on his 17th birthday.

Instead, he is an unassuming, but confident, teenager who is ready for even more success as *Jet Set Willy*, the next instalment in the *Manic Miner* saga, hits the nation's micros.

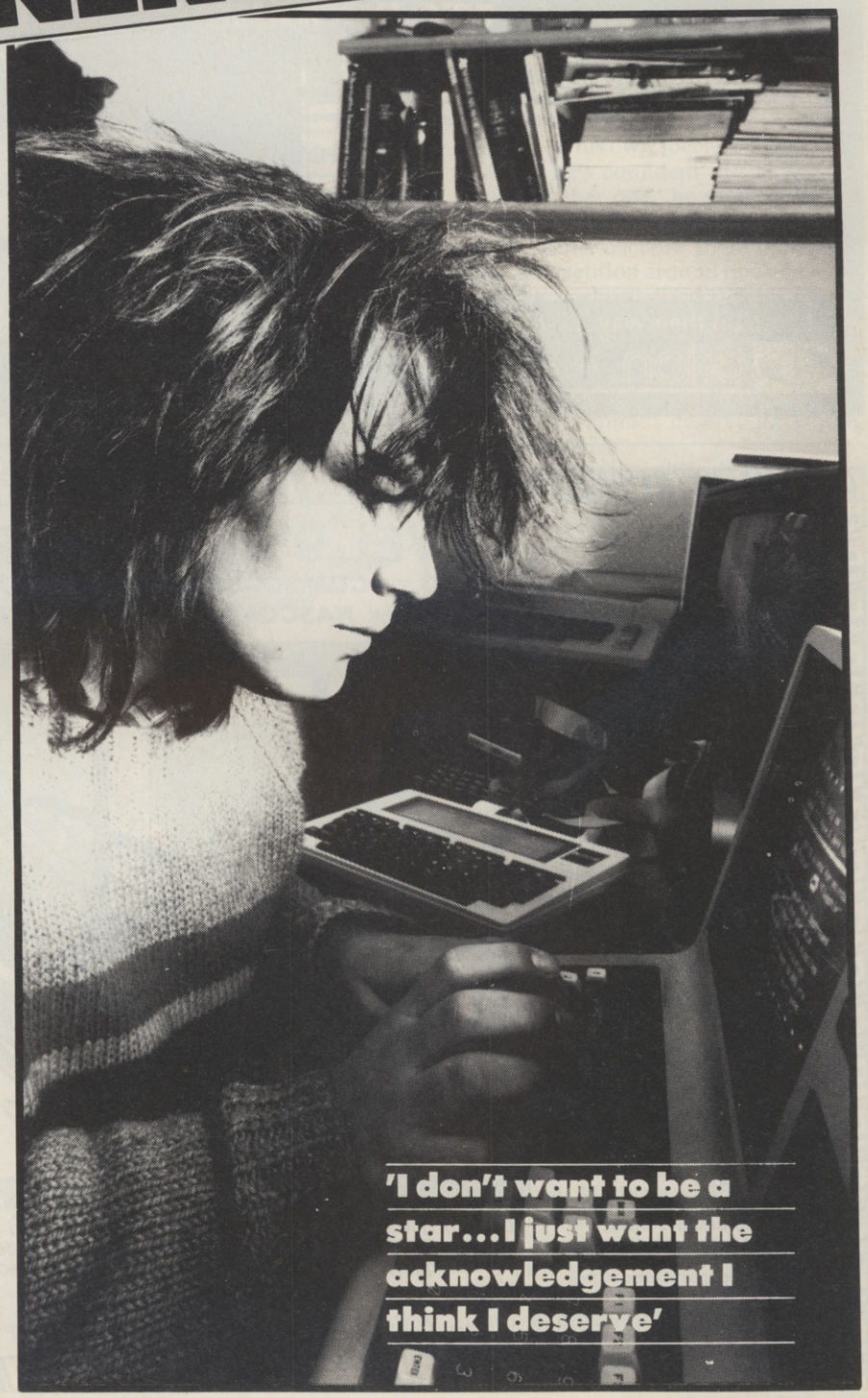
At the offices of Software Projects, the new company in which Matthew is a major shareholder, he told me how he'd first become interested in computing: 'I'd been keen on electronics, building transistor radios and so on, and five years ago my parents gave me a Tandy for Christmas. It only had 4K of memory and unextended Basic, but it got me hooked.'

Like many others involved in Liverpool computing Matthew joined the Tandy users' group based in the local dealer's shop. 'We used to hang around after closing,' says Matthew. 'Fortunately the manager was an enthusiast as well.'

He pursued his interest at home too, and at the age of 14 wrote his first commercial program, a version of *Galaxians* called *Delta Tower One*. 'It took me weeks to write it. I think it sold 13 copies and I made about £50 profit.

'It was just an average game,' he added modestly.

Average or not, the game showed him that there was a living to be made in programming. Through his contacts in the Tandy shop he began to write business and accounting programs for companies in the Liverpool area. It was this freelance work which saw him through the period after leaving school



'I don't want to be a star... I just want the acknowledgement I think I deserve'

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in October 1982.

'I didn't like school,' says Matthew, 'and it didn't like me.' Still, he managed to pick up nine or 10 'O' levels.

It was only in April of last year that Matthew first got the Spectrum which has brought him fame and fortune. By this time he'd become associated with Bug-Byte, and it was for them that he wrote *Styx*, his first successful game program. In this perilous journey to the Hades of Greek mythology an experienced eye might be able to detect the germ of *Manic Miner*.

Before starting on the Herculean task of creating *Manic Miner* Matthew went on an 'inspirational skiing trip', which seems odd since he describes himself as 'naturally lazy'. It must have done the trick, though, because he was able to come back and spend eight solid weeks on the new program.

He followed a daunting routine, getting up in the evening, working until lunchtime, sleeping for a few hours and then going back to the computer. It doesn't sound like laziness to me.

Matthew's approach to programming is straightforward: 'When I got the Spectrum I worked out the limitations of the machine and then decided to write a program to go to the limits.'

'I'm not interested in flash cars, the money has just made it easier to be lazy.'

He actually wrote *Manic Miner* on a Model 4 Tandy with 5 Megabyte hard disk and then transcribed it on to the Spectrum. 'It's more efficient like that,' says Matthew, 'because the Tandy and the Spectrum both have the Z80 processor, and there's no waiting for loading and saving.'

I asked him if he had had any artistic help with *Manic Miner*'s impressive graphics. 'No,' he replied, 'I drew them out myself on graph paper. Art was one of my better subjects at school.'

Manic Miner, though, was not originally Matthew's idea. It came first of all from Alan Maton, his partner in Software Projects, who suggested the idea of a figure tunnelling down. Matthew turned this upside down and the result was the game all Spectrum owners know and love.

Their first thought for a name was *Miner 49'er* but, like many great inventions, someone else got there just before them. Whatever the name, Matthew was confident of success: 'I was pretty sure it was a winner as soon as I'd finished it.'

He took a two-month holiday after *Manic Miner*'s completion in which, he says, 'I just went to bed at nights.' But there has been little rest for him since his return to Liverpool. In September a follow-up to *Manic Miner* was 'discussed over meals in various restaurants'. And so, over the tablecloth, *Jet Set Willy* was born.

Matthew has found things rather difficult with *Willy*. 'To program you really have to enjoy sitting at a computer all night,' he said, 'but I'm getting too old to manage the hard regime.'

However, despite the weight of his 18 years, Matthew is pleased with what he's achieved in *Jet Set Willy*. 'I think I've got about three times as much into the program as in *Manic Miner*.' He describes it as being in the style of an 'arcade adventure' with graphics developed on his own special software.

Again he's confident of success: It'll reach number one,' he predicts, but he doesn't think it will stay there as long as *Manic Miner* because 'there's too much good competition around nowadays.'

Jet Set Willy is bound to bring Matthew even more publicity, yet the role of ace programmer is one he's unwilling to play. 'I don't particularly want to be a star,' he says. 'I just want the acknowledgement I think I deserve for writing good programs.'

Part of this recognition is likely to be a lot more money – to go with the £20,000 or so he has already banked from *Manic Miner*. But there won't be any extravagances: 'I'm not interested in flash cars and that kind of thing,' he says. 'The money has just made it a bit easier to be lazy ...'

After another skiing trip Matthew expects to start thinking about a follow-up to *Jet Set Willy* – perhaps to be called *Willy Meets the Taxman*. He also intends to start programming on the Spectravideo and other machines using the MSX operating system; another massive market for miner Willy.

Looking further ahead Matthew's future is uncertain. He is sure, though, that he won't always be a games designer. 'Programming games won't keep me going for the rest of my life,' he says.

So what will? He hopes to take a closer interest in the business side of Software Projects and doesn't rule out the possibility of studying Computer Science 'when I'm too old to program'. That might not be too far away since he says 'I'm a bit over the hill already'.

And what about those socks? Obviously Matthew Smith has enough pocket money to buy a few thousand pairs.

'I only wear them occasionally,' he says, 'when it's very, very cold.' Somehow, writing *Manic Miner* seems to have warmed the parts that other computer games don't reach. ●

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The 70 people who write the riddles we think are the funniest will win the prizes – and their riddles will be printed in the magazine for us all to laugh at.

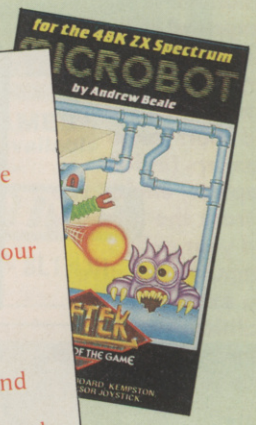
To get you in the mood just look at the three riddles on this page. They were written by the editor which can only mean it's not difficult. So...get cracking.

WRITING RIDDLES IS EASY

Q. What did Gandalf say when Bilbo kept asking him how to get through a dark forest on one leg?
A. Hoppit hobbit.

Q. What should you do if your brother offers you £10 to play with the lousy program you just LOADed?
A. Take the money and RUN.

Q. What happened when Horace got eaten by the spiders?
A. His wife became a black widow.



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d-fire lasers.

Zoids. Battle
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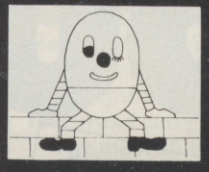

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NAMED: THE B
FOR YOUR MI

You'll find this section invaluable if you're trying to decide which games to buy for your micro. Like everyone else, you've probably been overwhelmed by the vast number of programs to choose from. And the fact is that while some games on offer are truly brilliant, others are a rip-off. You can't decide simply by looking at the cassette cover.

What we've done is to look at the entire range of games available and come up with some which we can whole-heartedly recommend. A considerable number of people have been consulted in drawing up these lists, and we shall constantly be updating them as new games come on the market.

Also each month we take two games from these charts and give them special treatment. One we call 'Screen Classic' and give it a page to itself in which we explain what makes it a good game. The second we hand over for special testing by our Program Control Guardians.

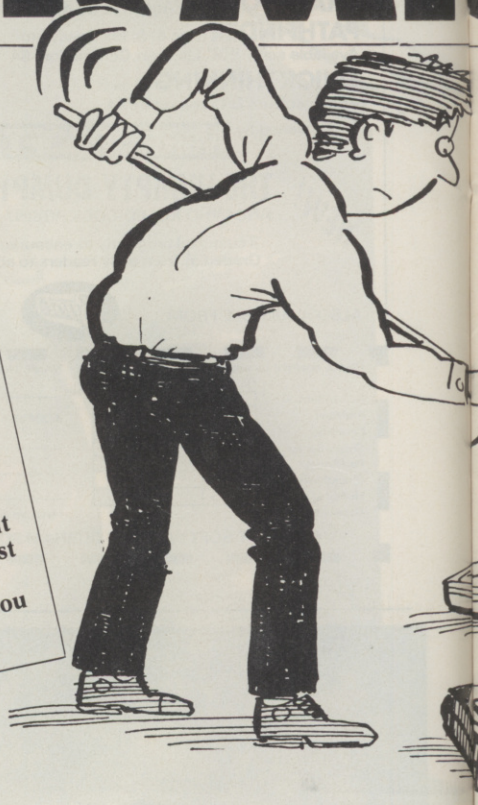
The games listed below are not in any special order. Those at the top of the lists are not necessarily any better than those at the bottom.

And you should bear in mind that people's tastes differ. The games listed here are all high-quality. But this doesn't mean to say that you would enjoy all of them.

If possible you should always see a game before buying.

If a game is very new, we may not have had time to include it in our lists. But you can keep right up to date with all the newest games in our huge Screen Test section.

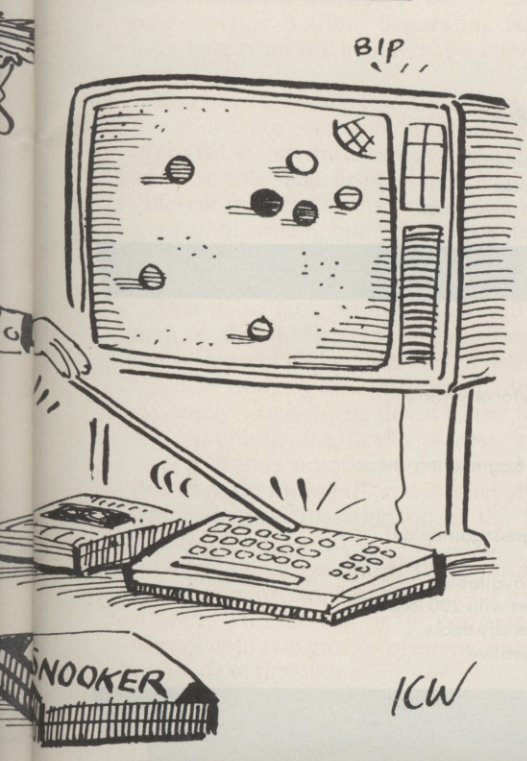
Finally, if you disagree strongly with some of our entries on these lists, or you know of a fantastic game which we haven't included, please write and tell us.



SPECTRUM GAMES

TITLE	MEM REQD	PRICE	SUPPLIER	COMMENT
Jet Pac	16K	5.50	Ultimate	Use your jet-powered man to assemble a rocket and avoid aliens
Lunar Jetman	48K	5.50	Ultimate	The follow-up to *Jet Pac*. Superb – if you can find out what to do.
Pssst!	16K	5.50	Ultimate	Use insect sprays to protect your plant from nasty bugs
Manic Miner	48K	6.00	Software Projects	Spectrum classic, with 20 different screens to guide your miner through
Missile Defence	16K	5.95	Anirog	The best of six versions of Missile Command.
Firebirds	16K	5.95	Softek	A *Galaxian* derivation. Exciting space action.
Zzoom	48K	5.50	Imagine	3D view from a cockpit. Save refugees from attacking planes, tanks etc
Galaxians	16K	5.50	Artic	The best version of the space game *Galaxians*
Penetrator	48K	6.00	Melbourne House	The most sophisticated version of *Scramble* with 5-level action
Timegate	48K	7.00	Quicksilva	A superlative version of 3D *Star Trek* with a good measure of arcade action
Jumpin Jack	16K	5.50	Imagine	One of the simplest games, yet incredibly addictive
Scrabble	48K	15.95	Sinclair	A brilliant simulation with an 11,000 word vocabulary
The Hobbit	48K	14.95	Melbourne House	A wonderous graphics adventure, which takes you through the Tolkien book
Valhalla	48K	14.95	Legend	An innovative attempt at an animated, multi-character adventure
Cyrus Chess	48K	9.95	Sinclair	Arguably the best chess game on the Spectrum
Apocalypse	48K	9.95	Red Shift	Complex strategy war game
Maziacs	48K	6.95	DK'tronics	Exciting maze game with nasty monsters
Colossal Adventure	48K	9.90	Level 9	First of a series of highly complex adventures with 200 locations
Android 2	48K	5.95	Vortex	Very difficult 3D version of *Robotron*
Scuba Dive	48K	5.50	Durell	Dive deep to get treasures. Terriffic graphics
Fighter Pilot	48K	7.95	Digital Integration	Superb flight simulator with combat features
Ant Attack	48K	6.95	Quicksilva	Amazing 3D graphics as you try to save the girl from the killer ants
Cookie	16K	5.50	Ultimate	Great graphics and original kitchen theme
Halls of the Things	48K	7.50	Crystal	Very fast and difficult adventure/arcade game
Invasion of the Body Snatchas	48K	6.50	Crystal	Best version of *Defender* – but no sound without Fuller soundbox
Chuckie Egg	48K	7.90	A&F	Compelling multi-level game with deadly ducks

BEST GAMES ICRO



NEWCOMERS START HERE

Baffling isn't it? All you did was get a computer to have some fun on, and people expect you to speak an entirely different language. We'll try to help out.

Computer games come in many different types, but these can be divided into a few broad categories.

The most common are ARCADE games. These aren't just games that you see in the arcades, but any game in which you use the computer keyboard (or a joystick) to control directly the movement of characters or objects on the screen. Arcade games themselves fall into several different categories (see below).

Then there are ADVENTURE games. The main difference is that to get things to happen you have to actually type in instructions rather than just press a key to go left or right. This means that adventures proceed at a slower pace. Their challenge is to do with brain-power, not finger-power, and a good one can keep you occupied for months.

In recent months, the dividing line between adventure and arcade games has been blurred, with pictures and even moving pictures being introduced to adventures, and arcade games being written on adventure themes.

Then there are STRATEGY games Examples of these include games in which you control the fortunes of a country at war. The program might present the player with maps and statistics from which he will have to make his decisions.

MICRO CLASSICS

- **SCRAMBLE** Pilot your ship over mountains through caverns and around skyscrapers, avoiding missiles and meteors.
- **DEFENDER** Fast-moving space game in which your ship does battle with all manner of aliens.
- **ASTEROIDS** Destroy asteroids and alien craft using a highly manoeuvrable ship.
- **FROGGER** Guide the frog across busy roads and crocodile-infested rivers.
- **GALAXIANS** Development of *Invaders*, with the descending aliens cloning and wheeling off to the sides.
- **DONKEY KONG** Climb ladders and jump over obstacles as you attempt to rescue the damsel from the clutches of the nasty gorilla.
- **PAC-MAN** Exciting maze game; eat the monsters or be eaten.
- **MISSILE COMMAND** Protect your cities from the invaders by laying a protective covering of missile fire.
- **SPACE PANIC** Defeat the monsters by bonking them on the head and knocking them through the different levels.
- **CENTIPEDE** Blast the centipede, which splits up as it drops down on you.

COMMODORE 64

TITLE	PRICE	SUPPLIER	COMMENT
Super Pipeline	6.90	Taskset	Lay a pipeline while fighting off deadly bugs
Jammin'	6.90	Taskset	Strange and exciting game capturing musical instruments
Matrix	5.50	Llamasoft	High speed grid games; *Centipede* derivation with unique features
Lazerzone	5.50	Llamasoft	Alien invader game with guns on x and y axes.
Attack of the Mutant Camels	7.50	Llamasoft	*Defender*-type action with a jet fighter engaging deadly camels
Revenge of the Mutant Camels	8.00	Llamasoft	Follow-up to *Attack*, with camels fighting back and 42 screens
Motor Mania	8.00	Audiogenic	Good roadrace game
Falcon Patrol	8.00	Virgin	Good fighter simulation with 3D scrolling graphics
Hovver Bovver	8.00	Llamasoft	Suburban gardeners run riot with their mowers in a fast and witty game
International Soccer	9.95	Commodore	Superb soccer simulation on cartridge
Twin Kingdom Valley	9.50	Bug-Byte	Superb animated graphics adventure
The Hobbit	14.95	Melbourne House	Graphics adventure based on Tolkien's book

VIC 20 GAMES

TITLE	MEM REQD	PRICE	SUPPLIER	COMMENT
Lazerzone	8K	6.50	Llamasoft	Alien invader game with guns on x, y axes
Matrix	8K	6.50	Llamasoft	High-speed grid game, *Centipede* derivative with unique features
Omega Race	Std	10.00	Vicsoft	*Asteroids* development featuring bouncing force-fields
Gorf	Std	10.00	Vicsoft	Four-screen arcade game with elements of many popular games
Spiders of Mars	Std	20.00	Audiogenic	*Defender* derivative with insect aliens
Satellites and Mars	Std	20.00	Audiogenic	The definitive version of *Asteroids*
Choplifter	Std	25.00	Audiogenic	Exciting helicopter game, rescuing hostages
Serpentine	Std	25.00	Audiogenic	Variation of th *Pac-Man* theme, with gobbling serpents
Outworld	Std	25.00	Audiogenic	'State of the art' graphics for this *Missile Command* derivative
Space Fortress	Std	6.00	Romik	One of the best 3.5K shoot-'em-ups with multi-screen *Invader* type action
Gridrunner	Std	5.00	Llamasoft	Predecessor of *Matrix;* fast and furious grid game
Jet Pac	8K	5.50	Ultimate	Use your jet-powered man to assemble a rocket and avoid aliens
Myriad	6K	6.00	Vicsoft	Colourful, action packed shoot-up with 99 levels
Quadrant	Std	6.99	Romik	Athletic variant on *Galaxians*, with man jumping and shooting

ORIC GAMES

TITLE	PRICE	SUPPLIER	COMMENT*
The Ultra	6.95	PSS	Multi-screen space game
Xenon	8.50	IJK	Exciting space shoot-'em-up
Zorgon's Revenge	8.50	IJK	Follow up to *Xenon* 1 with the flavour of the Spectrum classic *Manic Miner*
The Hobbit	14.95	Melbourne	Innovative graphics adventure based on Tolkein novel
Colossal Adventure	9.90	Level 9	First of a series of hugely complex text adventures
Mushroom Mania	5.50	Arcadia	Nice version of *Centipede*

DRAGON GAMES

TITLE	PRICE	SUPPLIER	COMMENT
Wizard War	6.50	Salamander	Two player game of battling wizards
Franklin's Tomb	7.50	Salamander	An eventful text adventure
The King	8.00	Microdeal	Good version of *Donkey* Kong
Frogger	8.00	Microdeal	Nice version of the arcade classic
Crusader	6.95	J. B. Morrison Micros	Rescue the damsel in distress
Empire	6.95	Shards	Computer version of the board game *Risk*
Cuthbert goes Walkabout	8.00	Microdeal	Fill in the squares to get points
Danger Ranger	8.00	Microdeal	Arcade adventure with *Kong*-style elements
Bloc-Head	7.95	Dragon Data	*Q-Bert* clone on rectangular pile of blocks
Colossal Adventure	9.90	Level 9	First of a series of hugely complex text adventures
Chuckie Egg	7.90	A&F	Addictive multi-level game with deadly ducks

BBC GAMES

TITLE	PRICE	SUPPLIER	COMMENT
Planetoid	10.00	Acornsoft	The definitive version of *Defender*
Arcadians	10.00	Acornsoft	An excellent version of *Galaxians*
Meteors	10.00	Acornsoft	Probably the best version of *Asteroids* for any micro
Snapper	10.00	Acornsoft	A fine version of *Pac-Man*
Rocket Raid	10.00	Acornsoft	A fine version of *Scramble.*
Starship Command	10.00	Acornsoft	Space game with revolving ship and fragmenting aliens
Hopper	10.00	Acornsoft	Superb version of *Frogger*
Monsters	10.00	Acornsoft	The best version of *Space Panic*
Zalaga	7.00	Aardvark	The follow-up to *Arcadians* offering great gameplay
Road Runner	8.00	Superior	Car chase maze game
Cylon Attack	9.00	A&F	One of the best 3D space type games available
Colossal Adventure	9.90	Level 9	First of a series of huge text adventures with 200 locations
Chuckie Egg	7.90	A&F	Compelling multi-level game with deadly ducks
3D Munchy	4.95	MRM Software	Colourful and unusual. *Pac-Man* derivative
Killer Gorilla	7.95	Program Power	Excellent version of *Kong.*

ATARI GAMES

TITLE	PRICE	SUPPLIER	COMMENT
Star Raiders	30.00	Atari	A 3D arcade-quality game
Defender	30.00	Atari	The licensed version from Williams of the Arcade classic
Caverns of Mars	30.00	Atari	A vertical version of *Scramble*
Missile Command	30.00	Atari	This is the best and meanest version of the original
Zaxxon	28.00	Atari	Space-fighter multi-stage game with asteroids and space fortresses
Donkey Kong	30.00	Datasoft	An arcade copy, superbly done
Qix	30.00	Atari	An intriguing territorial possession game with clear graphics
Preppie	22.00	Adventure	Multi-screen arcade adventure featuring a lawn mower and vicious opponents
Choplifter	30.00	Broderbund	Exciting helicopter game, rescuing hostages
Miner 2049'er	30.00	Big Five	A *Donkey Kong* derivative with novel elements
Shamus	30.00	Synapse	Multi-screen arcade adventure game
Necromancer	30.00	Synapse	Wizard battles through several levels of mystic monsters
Pole Position	30.00	Atari	Superb version of the arcade motor racing game
Tennis	25.00	Atari	Terrific simulation. Better than Wimbledon

WHERE TO GET YOUR GAMES

Aardvark, 100 Ardleigh Green Road, Hornchurch, Essex
A & F Software, 830 Hyde Road, Manchester M18 7JD
Acornsoft, 18 Tower Street, Covent Garden, London WC2H 9NN
Anirog, 29 West Hill, Dartford, Kent
Artic Ltd, Main Street, Brandesburton, Driffield YO25 8RG
Audiogenic, PO Box 88, Reading
Bug-Byte, Mulberry House, Canning Place, Liverpool L1 8JB
DK'tronics, Unit 2, Shire Hill Industrial Estate, Saffron Waldon, Essex CB11 3AX
Dragon Data, Kensig Industrial Estate, Hargan, Port Talbot, West Glamorgan SA13 2PE
LJK Software Ltd, 9 King Street, Blackpool, Lancashire
Imagine, Masons Buildings, Exchange Street East, Liverpool L2 3PN
J B Morrison Micros, 2 Glensdale Street, Leeds LS9 9JJ
Level 9 Computing, 229 Hughenden Road, High Wycombe, Bucks HP13 5PG
Legend, 1 Milton, Cambridge CB4 1UY
Llamasoft, Awesome Games Software, 49 Mount Pleasant, Tadley, Hants
Megadodo, 16 While Road, Sutton Coldfield, West Midlands B72 1ND
Melbourne House, 224 Stanley Road, Teddington, Middlesex TW11 8UE
Microdeal, 41 Truro Road, St Austell, Cornwall PL25 5JE
PSS, 452 Stoney Stanton Road, Coventry CV6 5DG
Quicksilva, 13 Palmerston Road, Southampton, Hampshire SO1 1LL.
Red Shift, 12C Manor Road, Stoke Newington, London N16
Romik, 272 Argyll Avenue, Slough SL1 4HE.
Salamander, 17 Norfolk Road, Brighton, East Sussex BN1 3AA
Shards, 189 Eton Road, Ilford, Essex 1GU 2UQ
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Sinclair, Willis Road, Cambridge CB1 2AQ
Softek, 12/13 Henrietta Street, Covent Garden, London WC2E 8LH
Superior, 69 Leeds Road, Bromhope, Leeds
Taskset, 13 High Street, Bridlington YO16 4PR
Timescape, 1 Virginia Gardens, Fairways, Milngave, Glasgow G62 6LG
Ultimate, The Green, Ashby de la Zouch, Leicestershire LE6 5JU
Vicsoft, 675 Ajax Avenue, Slough, Berks SL1 4BC
Virgin, 61–63 Portobello Road, London W11 3DD

CLASSIC ★ SCREEN CLASSIC

Our choice from the Good Buy charts this month is a Vic 20 all-action mega-zap

GORF

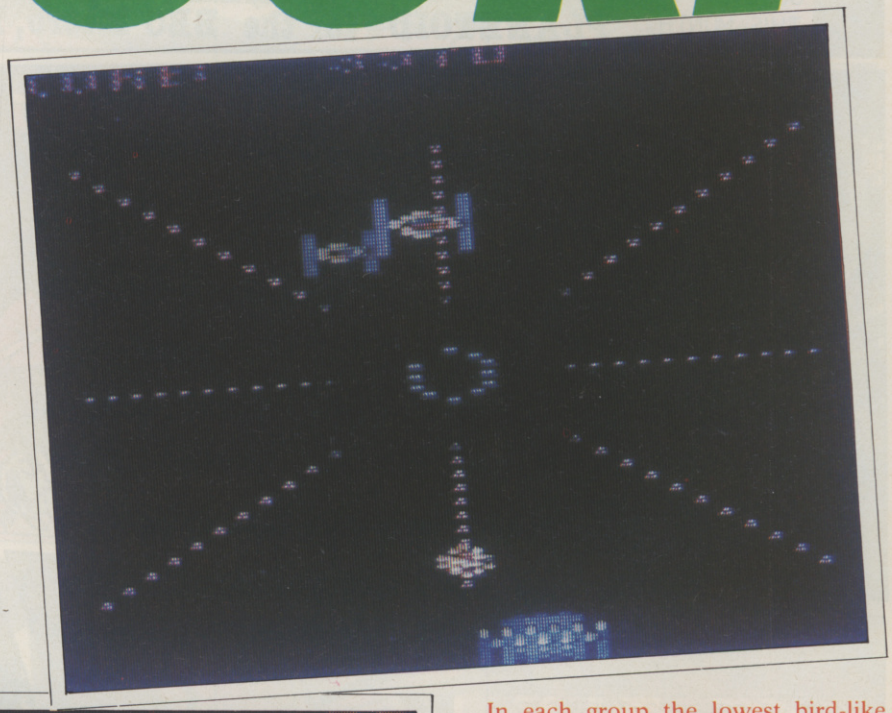
Gorf is an arcade classic available to Vic owners on a reasonably priced cartridge. The attraction of the game is that you get four shoot'em-ups on the one program, thus giving you a certain variety in your zapping.

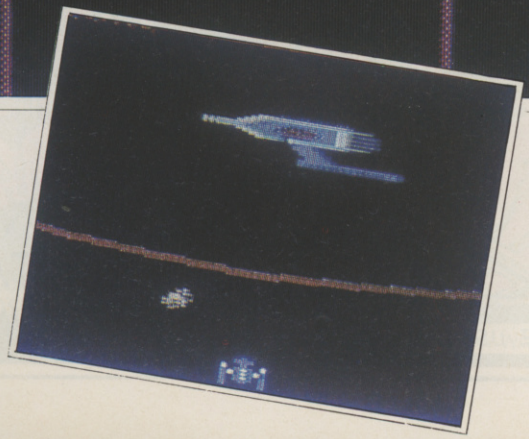
The first of the screens is an invaders-style challenge. 'Mission 1', the message reads, 'Astro Battles.' Separating your laser base from the invaders is a curved force-field.

You have to blast a few holes through this in order to get a shot off; the danger, of course, is that the aliens can get a shot back at you. The firing too is slightly different from the norm; you cannot fire a constant stream, but must wait until a bullet has hit its target before firing another.

This is, in fact, an advantage rather than a drawback, making the game much more challenging. It's a tricky business dodging the invader's bullets, especially when it gets down to the last one zooming frantically across the screen. Bonus points can be scored at this stage for hitting the red mother ship which floats across the top of the invaders.

Once you've got rid of these rascals you move on to Mission 2 – *Laser Attack*. This screen is a *Galaxians* variant with two groups of aliens, one at each side of the screen.





In each group the lowest bird-like creature fires a very nasty laser bolt which spells death to all who get in its way. As well as avoiding this thing you also have to get out of the paths of the swooping Galaxians.

It's not easy. But in time you'll master these vicious blue and yellow creeps and graduate to Mission 3: *Space Warp*.

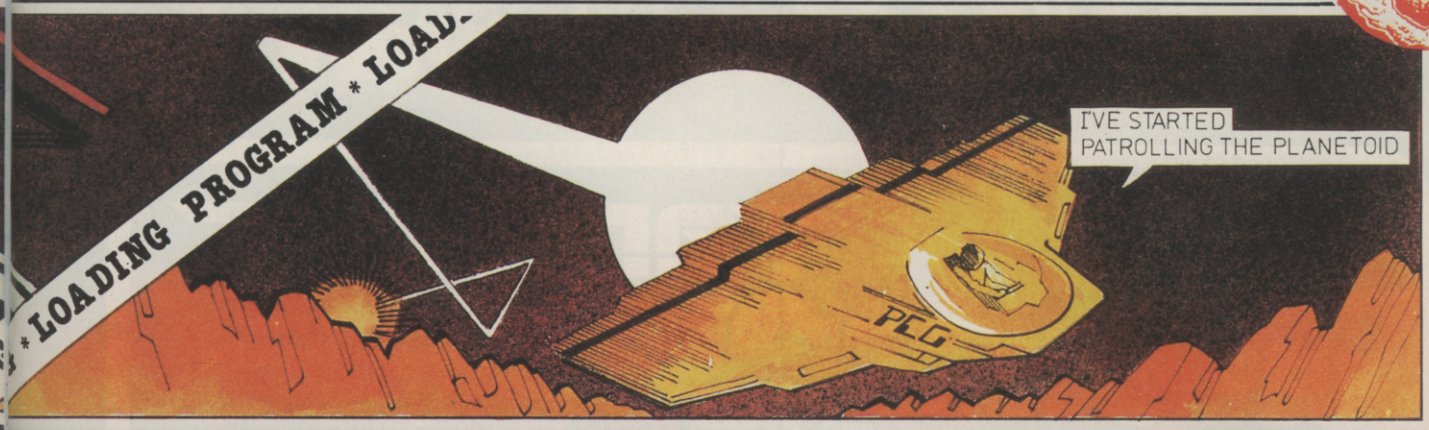
Here the screen displays a number of pulsating colourful lines radiating from the centre of the picture. Tiny ships appear, speed toward you getting larger and then drop their vicious bombs on you.

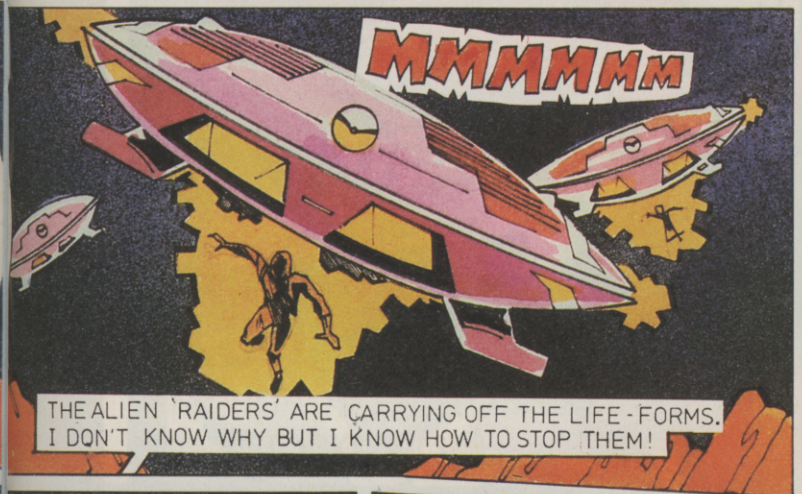
To succeed here you need nerves of steel and an eye sharp enough to get the ships in their infancy. If you've got what it takes you will eventually reach the fourth and last screen: *Flagship*.

Once again you are protected by a force field but this time you must try and blast the spaceship cruising overhead. Naturally you are under constant attack from the ship's bombs. The difficult thing here is to score the required direct hit on the flagship's central power supply. It demands an exact sense of timing which I have yet to master.

Given the limitations of the Vic as a games machine, Gorf's graphics are impressive. The sound is also quite good with suitably loud zapping noises. At £10.00 for a cartridge Gorf is very good value indeed.

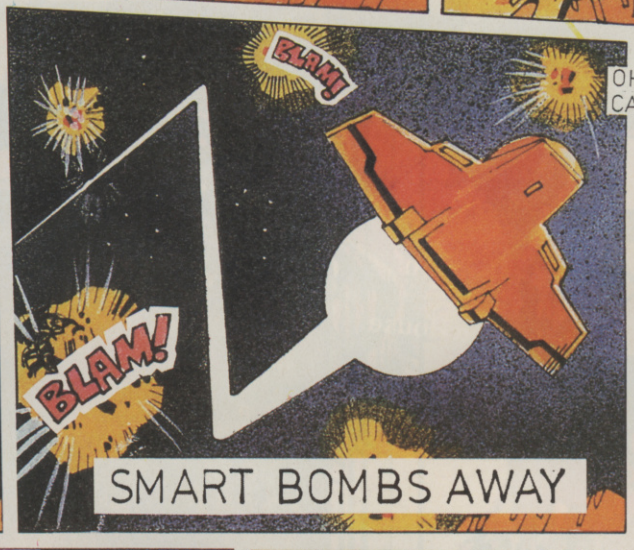
Program Control
GUARDIANS
HELLO, I HAVE DECIDED TO GO ON THIS MISSION MYSELF TO SHOW THESE YOUNGSTERS A TRICK OR TWO
EACH MONTH MATI, BOFFIN, HAL AND COMMANDER CHANCE CHECK OUT A 'GOOD-BUY' PROGRAM - FROM THE INSIDE THIS MONTH.... PLANETOID for the BBC Micro, Model B.
THE LONG RANGE SCANNERS SHOW LIFE - FORMS ON THE SURFACE... WAIT, I'M PICKING UP WAVES OF ALIEN CRAFT
HELP US!
THEY'VE DROPPED THEIR CARGO...
GOT THEM!
WHOOSH
LIFE - FORMS RETURNED TO THE PLANET'S SURFACE
CHANCE
MMMM
I MUST DESTROY IT.
BUT...
MUTANTS
WAIT, THE RAIDER IS COMING BACK, BUT IT'S DIFFERENT THEY'RE USING HUMANOIDS TO CREATE


* LOADING PROGRAM *
I'VE STARTED PATROLLING THE PLANETOID
PCG

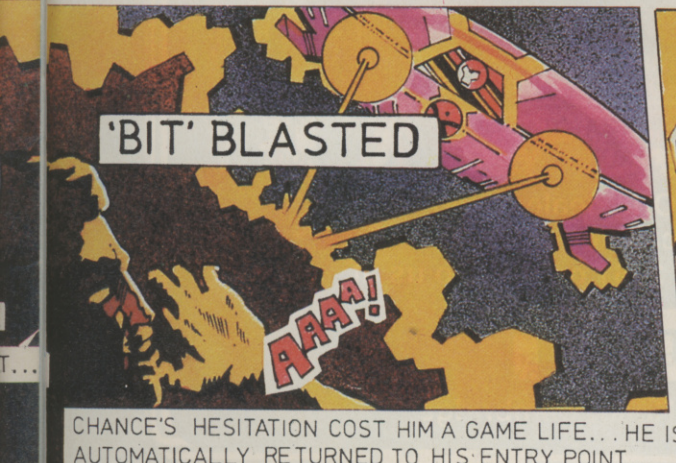

MMMMMM
THE ALIEN 'RAIDERS' ARE CARRYING OFF THE LIFE-FORMS. I DON'T KNOW WHY BUT I KNOW HOW TO STOP THEM!

ZZAK!
LASER CANNON

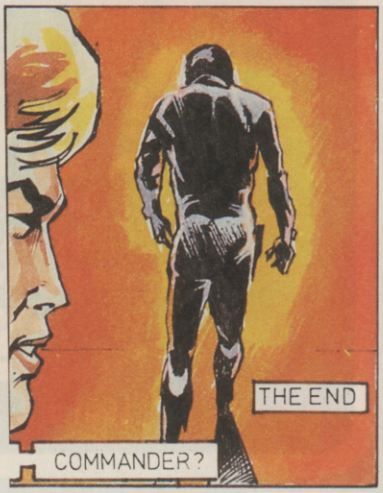
THE ALIENS ARE SENDING WAVES OF CRAFT TO STOP ME, WELL I CAN FIX THAT!


BLAM!
BLAM!
SMART BOMBS AWAY

OH NO! A RAIDER GOT THROUGH AND CARRIED OFF A HUMANOID BUT WHY...


'BIT' BLASTED
AAAA!
CHANCE'S HESITATION COST HIM A GAME LIFE... HE IS AUTOMATICALLY RETURNED TO HIS ENTRY POINT...

...IT WAS THE GIRL
HOW WAS IT COMMANDER!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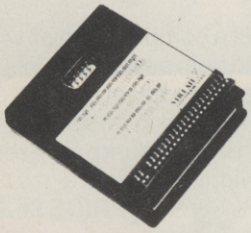

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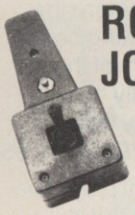

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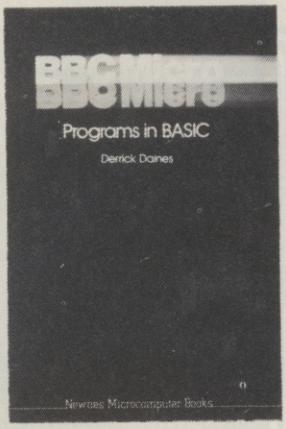

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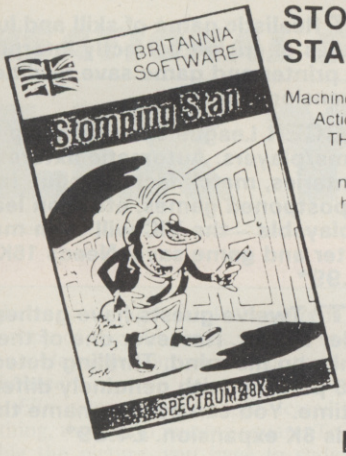

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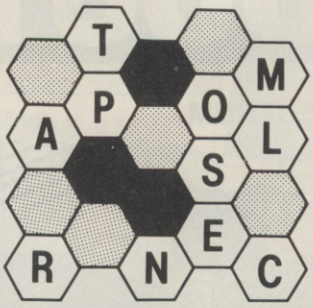

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● WHY FLIX IS SPECIAL

At first glance, you might think that *Flix* is simply a copy of the old plastic puzzles in which you slide squares around to put them in the right order.

It isn't, *Flix* is much more sophisticated. For one thing, there's no missing square. To unscramble the picture, you have to slide entire rows or columns, not individual squares.

This means the puzzle has a similar feel to the famous Rubik's Cube. However, *Flix* can *only* be done on a computer – the puzzle has a 'wrap-round' feature which means that when you slide a row, squares which would otherwise be slid off the picture reappear on the other side.

The program is packed with features aimed at making it easy to use.

You can press a key to view on screen the picture in its unscrambled state. You can save a half-finished puzzle on cassette. And there's even an auto-solve facility – great fun to watch, although obviously this isn't available when you're working on the competition puzzle itself!

The puzzle operates on four different levels of difficulty. The competition uses the hardest level, but you can practise on the easier levels. On the simplest level, your picture is divided into just 12 squares.

A remarkable program is being released this month, offering 48K Spectrum owners a unique new puzzle and the chance of winning one of 46 superb prizes.

Flix is a game in which you have to unscramble a picture by sliding its rows and columns of jumbled up squares. The puzzle is simple to operate, but teasingly difficult to solve.

So in conjunction with *Softricks*, the producers of *Flix*, we're launching an incredible nationwide competition to track down the best puzzlers in the land.

Just look at the fabulous list of prizes we're offering to those who, on 31 October 1984, have solved the puzzle in the lowest number of moves.

What's more, readers of *Personal Computer Games* can use the £2 voucher printed on this page to buy *Flix* at a huge discount.

The competition works like this. When you get your copy of *Flix*, one of the pictures it includes will be a jumbled up drawing featuring the logos of Softricks and *Personal Computer Games*. Your task is to unscramble this picture.

Full competition instructions and rules will be included with the cassette.

But you can do a lot with *Flix* apart from entering the competition. The puzzle allows you to enter any screen picture you like and jumble it up. So you can load in the opening screen from any of your favourite games.

All in all, *Flix* is a beautiful program in its own right and should provide you with hours of intriguing fun. But with the exciting competition we've lined up as a bonus, we reckon it's going to be *the* puzzle of 1984.

● Paintbox screen

● Competition screen unjumbled

● 46 PRIZES!!

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● Paintbox screen jumbled

● CANNY SCOT

Flix is the work of a 17-year-old Scottish university student, Gary McGill, the latest in a growing number of up-and-coming star programmers.

● FLIX OFFER VOUCHER

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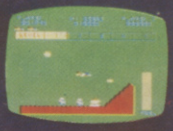

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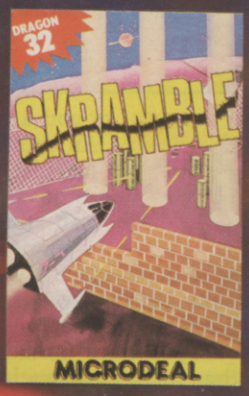

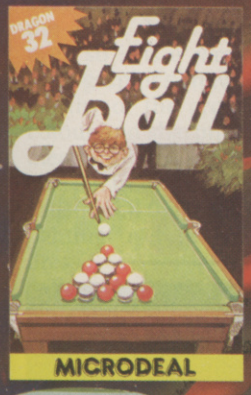

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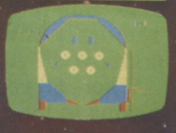

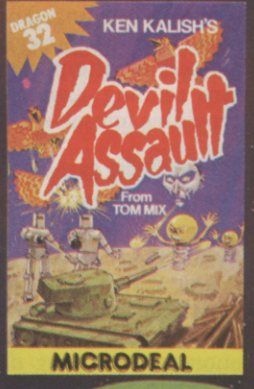

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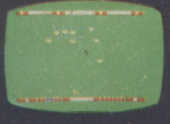

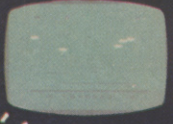
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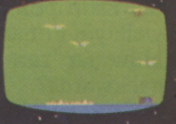

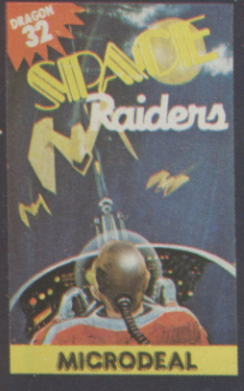

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Our intrepid reviewer, Peter Connor, braves fireballs, deadly custard pies and vertigo to answer the burning question

WHO'S KING OF THE KONGS?

Are you a man or a mouse? An enormous hairy gorilla has just stolen your sweet little girlfriend. Can you sit there and let this monstrous ape kick sand in your face? Or will you flex your puny little muscles, grit your teeth and go off to the rescue?

If you have no stomach for the job then there's not much point playing any of the many *Kong* games now available, because this is a game that takes guts. The diminutive hero must pit his wit and agility against the brute force of his simian adversary; it's brain against brawn as you try to get beauty from the beast.

Lovesick gorilla

The original inspiration for the *Kong* game was, of course, the film 'King Kong' in which blonde startlet Fay Wray was abducted by the lovesick gorilla. Kong followed her to New York and sought refuge at the top of the Empire State Building where his downfall was eventually brought about by the rather primitive US Airforce.

When, 50 years later, Kong arrived as a game in the arcades the Empire State became a load of old girders. The girders though are arranged on several different screens, thus providing a variety of dangers for the player to negotiate before sending Kong to his doom and providing himself worthy of the girl.

Barrels and fireballs

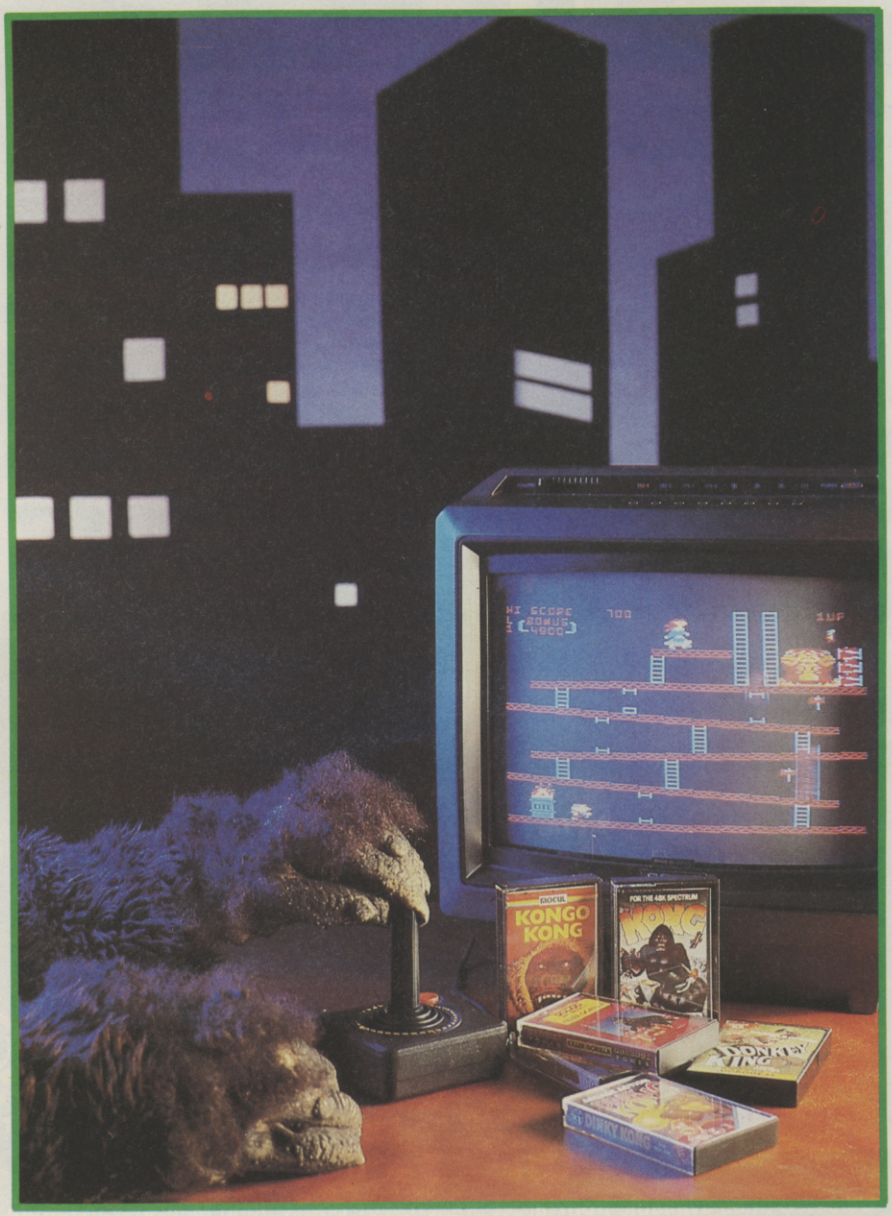
These obstacles vary slightly from game to game but they are essentially the same. First of all Kong rolls barrels down a series of inclined girders up which the hero is trying to climb.

To avoid them the hero is gifted with enormous jumping ability and one of the main points in any version is how well your man leaps. Is he smooth? How far can he go? Can he jump backwards?

These are just a few of the questions that the dedicated *Kong*'er will ask himself before even considering whether a game is worth buying.

Other hazards to be found on this first level, especially dangerous when trying to climb the ladders linking the girders, are fireballs; these are more troublesome than barrels as they have a habit of following you. Handy in this case are the hammers often hanging around with which you can quickly 'bonk' an enemy or two.

On the second level the player is usually confronted with the problem of conveyor belts which move him in the direction of a vat of boiling oil. In some versions, though, this location is a pie



factory with lethal custard tarts and a vat of what is presumably boiling custard.

Further on, the problem is how to get to the top of a series of unconnected girders. The only way up is to jump on lifts as they move up and down. Needless to say, there are always nasty creatures pursuing you.

Happy ending?

On the fourth, and usually final, level the hero has to rush around an arrangement of girders knocking out the pegs which support them. If he succeeds, Kong tumbles to his death and he gets the girl for evermore. What happens then is not really our business here.

For the home micro the nearest version to the arcade is *Donkey Kong* for the Atari. You might expect this, but even so it is a remarkably good game. The graphics have a clarity that is worthy of the arcade, with impressive colour and sharpness. Kong himself is a mean-looking redhead who beats his chest in frantic anger. The girl who is the cause of all the trouble seems well worth fighting over in her pigtails and blue dress.

Your hero, Mario the carpenter, is also a very accomplished figure. In fact, he is one of the most manoeuvrable figures in computer games. His running and jumping are a joy to behold, and he will even, given a little nifty joystick work, jump backwards. In Kong this sort of thing counts for a lot: it's no good buying a game where your man can't even jump over a barrel.

Smart ape

The sound too in this version is pleasing with jaunty tunes and good sound effects. All the features of the arcade game are there in splendid graphics. At the top level the ape even summons up enough brainpower to switch the dame from side to side, making your task just that little bit more difficult.

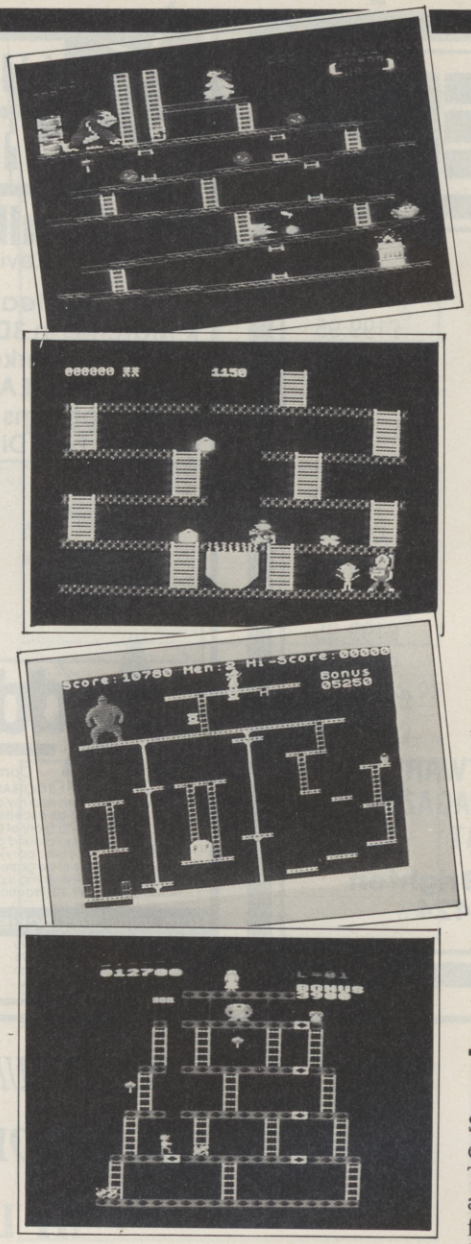
However, not everybody has an Atari and not everybody who does is willing to fork out a small fortune for the software. But owners of other micros need not despair: there's no shortage of *Kongs* for the leading micros.

For the Spectrum there are at least three versions available. Ocean's *Kong* has long been a best-seller and it's by no means a bad version.

The graphics are clear with strong bright purples, yellows and blues. Your man himself is quite cute as is his kidnapped girlfriend, but Kong, unfortunately, looks more like a golliwog than a fearsome gorilla.

All the necessary obstacles are there. On level one the barrels come raining down pretty quickly but since your man is a good jumper it's not too difficult to overcome them.

Level two is a bit puzzling. Are those things on the conveyor belts meant to be fireballs? Or are they perhaps pies? Vats of flaming oil possibly? I'm sure I don't know what they are.



Gorilla warfare – four scenes of Kong craziness from (top to bottom) *Donkey Kong, Kongo Kong, Krazy Kong* and *Killer Gorilla.*

'This is a game that takes guts'

The last two levels hold no surprises except that the girl seems to disappear from time to time making you wonder why you're going through this hell.

But it's gratifying all the same when you knock out the last pin and send the ape for the Kong Goodbye.

Blaby's *Killer Kong* is of a similar standard. The graphics are very clear and colourful in red, greem and yellow. The rather unattractive girl is exactly half green and half yellow. The little hero is, poor thing, slightly bow-legged but despite his handicap he's a game jumper.

Kong stands at the top, glowering with his hand on his hips like an angry mother-in-law. When you get to the top of the first screen you get a big kiss from the girl and two pretty hearts appear.

A curious innovation in this version is the replacement of the hammers (bonking, for the use of) by bonus hamburgers. They must be a strange flavour since they're a shade of green I've never seen at MacDonalds.

The most impressive feature of this game though is its sound, which is much better than in any other Spectrum *Kong*.

Convincing

Krazy Kong, from P.S.S., starts off very well: the title page displays a disgustingly convincing picture of a slavering gorilla. This can lead to a certain amount of disappointment when the game has loaded, since the real Kong is a rudimentary figure with no such frightening detail.

Your man is not too impressive either; although he jumps well enough he doesn't look as if he gives a damn about rescuing the girl. On the other hand, Jane – for that is her name – is not half bad and seems worth the trouble.

The game, though, does have some engaging features. When a barrel drops on your head and you meet your Maker a gravestone appears on which is inscribed R.I.P.

The game starts quite slowly but gets much faster as your man moves through the levels and the pies, conveyor belts and lifts. On the whole the graphics are well up to scratch.

Too fast

Calisto's *Wally Kong*, also for the Spectrum, was unfortunately christened: Wally by name, Wally by nature. The graphics in this game are not bad and Wally himself is an engaging enough fellow even if he does seem to have his hands tied behind his back and to be doing deep knee-bends. The problem is that the game is far too fast; it took me a long, long time to reach level two and then, when I finally made it, the program went and crashed on me.

The less popular micros aren't Kongless either although there's not as much choice as for the Spectrum. Microdeal's *Donkey King*, for the Dragon 32, is an enjoyable version; as the blurb says, it's 'barrels of fun'.

You have a very nice little man trying to save a very nice little girl. The gorilla is big and blue and gleefully rolls out the barrels. The graphics, in fact, are good throughout this game, but it's the sound which is especially fine with a rollicking organ background.

All the usual obstacles are there as well as the usual bonus objects, such as the young lady's handbag. A nice detail is the flashing 'L' which warns you when your bonking time on the hammer is about to run out. A drawback is the Dragon joystick; since it's not self-centring it's very difficult to keep control of your man.

Even Oric owners can play the game, or one game at least; Severn Software's

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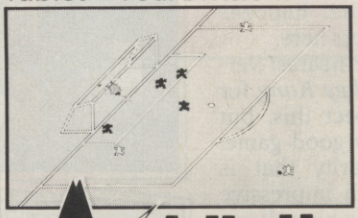

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* ZX81 Chart
Home Computing Weekly
1.8.83 and 1.11.83.

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Dinky Kong. But they should only buy it if they're absolutely desperate to monkey around with a Kong – there's no joystick option and you're forced to use the dreaded Oric cursor keys.

Unless the hemispheres of your brain are opposite to the normal position you will find it very frustrating. There's also a terribly long gap between pressing the space bar and your man jumping.

The graphics don't make up for the unresponsive controls. The barrels are empty circles and the big K himself is just the merest outline. Furthermore, when you stay awake long enough to get to the top of the first screen you find out you have to go through it all over again. I'd rather spend an hour in the ape-house at London Zoo than play this game again.

Smooth action

As far as I know there's only one version available for the BBC; fortunately it's excellent. Program Power's *Killer Gorilla* features the best graphics, except for the Atari, of any micro.

The colours are very bright and the action is really smooth. The homicidal ape is a virulent shade of bright red, while your girl is a pretty little Goldilocks. Sound, too, is very good although it can become annoyingly repetitive if you don't quickly make progress.

There is the conventional order of screens; once you have done for Kong on the highest level you start all over again but at a much faster speed. There are few more satisfying barrel-bonks in the business than *Killer Gorilla*.

Ape fanciers with a Commodore 64 are faced with rather more choice; the quality, though, doesn't match the quantity.

For instance, the most striking point about Anirog's *Kong* is the size of your man's nose; it's an enormous wobbling proboscis which rather distracts your attention from more important issues.

Another curious feature is that instead of a hammer for bonking you're given a mallet, as if you wanted to invite your old chum Kong out for a game of croquet.

On the other hand, level one does have some good grinning fireballs which leap out of their can to grab you. Your man, though isn't easy to control, sometimes behaving very erratically at crucial moments.

Moving

Kongo Kong, from Mogul, also has rather unsophisticated graphics, but they are at least very clear. Your smart man emerges from a little pink house and is very easy to control. When he gets to the top of a screen a heart appears and a love theme from Tchaikovsky is played. It's very moving.

This version is quite slow on level one but does get much quicker. On later screens there are some original features such as hostile birds and magic keys. Overall it's a pleasant version, scoring well for playability.

GAME: KONGO KONG £6.95
MACHINE: COMMODORE 64

GRAPHICS	6
SOUND	5
EASE OF USE	6
LASTING INTEREST	6
OVERALL	6

GAME: WALLY KONG £5.95
MACHINE: SPECTRUM 48K

GRAPHICS	6
SOUND	4
EASE OF USE	2
LASTING INTEREST	2
OVERALL	2

GAME: KILLER KONG £5.95
MACHINE: SPECTRUM 48K

GRAPHICS	6
SOUND	7
EASE OF USE	6
LASTING INTEREST	6
OVERALL	6

GAME: KONG £7.95
MACHINE: COMMODORE 64

GRAPHICS	5
SOUND	5
EASE OF USE	5
LASTING INTEREST	5
OVERALL	5

GAME: DINKY KONG £6.95
MACHINE: ORIC 48K

GRAPHICS	2
SOUND	2
EASE OF USE	2
LASTING INTEREST	2
OVERALL	2

Supersoft's *Crazy Kong* is very disappointing. The graphics look like something for the first colour ZX81 and the sound is little better, consisting of a repeated Laurel and Hardy tune. The girl is an unappetizing creature with ratty pigtails and Kong is no more attractive; they seem a good match. If I were Mario I'd let her go.

The verdict

So which *Kong* is King? There are reasonable versions available for most micros but few outstanding ones. Despite the choice for Spectrum and Commodore 64 owners no single game is clearly superior. Atari's game has obvious advantages but when you consider the price of Atari software enthusiasm might wane. The choice then falls on Program Power's *Killer Gorilla* for the BBC which stands out for the quality of its graphics and its smooth playability; this Kong's certainly no donkey. ●

GAME: KONG £5.90
MACHINE: SPECTRUM 48K

GRAPHICS	6
SOUND	4
EASE OF USE	6
LASTING INTEREST	6
OVERALL	6

GAME: KRAZY KONG £5.95
MACHINE: SPECTRUM 48K

GRAPHICS	5
SOUND	4
EASE OF USE	5
LASTING INTEREST	5
OVERALL	5

GAME: KRAZY KONG £5.95
MACHINE: COMMODORE 64

GRAPHICS	3
SOUND	3
EASE OF USE	4
LASTING INTEREST	3
OVERALL	3

GAME: DONKEY KONG £29.95
MACHINE: ATARI 400, 800, XL

GRAPHICS	9
SOUND	8
EASE OF USE	8
LASTING INTEREST	8
OVERALL	8

GAME: KILLER GORILLA £7.95
MACHINE: BBC

GRAPHICS	9
SOUND	8
EASE OF USE	8
LASTING INTEREST	9
OVERALL	9

GAME: DONKEY KING £8.00
MACHINE: DRAGON 32

GRAPHICS	6
SOUND	7
EASE OF USE	5
LASTING INTEREST	6
OVERALL	6

Steve Cooke experiences the exciting games potential of the new machine from the East

SPECTRAVIDEO

It always happens at parties. There you are, extolling the virtues of your British-built Spectrum, BBC, Oric or whatever, when up comes some twerp clutching a gin and tonic who then grabs all the attention by announcing the death of the British computer industry.

Our native hardware manufacturers, he says, are about to turn tail and flee like lemmings in the face of the Great Oriental Invasion. What can you do? Thrust his gin and tonic down his throat, or agree with everything he says?

If like me you'd just spent two weeks playing with the Spectravideo, you'd find yourself agreeing with everything he says. It's not just that the Spectravideo's a good machine, it's an excellent one, and must be considered a serious contender in the sub-£200 home market.

Indeed with a built-in joystick and excellent graphic facilities, the Spectravideo looks tailor-made for games players.

The trouble is, the machine's useless unless there is a good supply of software either currently available or on the horizon. To put it bluntly, if you buy a Spectravideo today, will you be kicking yourself in six months time?

A quick 'phone round the country's major software houses indicates a good deal of interest in the Spectravideo, with many programmers waxing lyrical about the machine and what they hope to do with it.

Of course if it doesn't sell then no-one will touch it. But potential buyers can take comfort from the fact that the machine is already a big hit in America, that production lines in Hong Kong are rolling with customary oriental efficiency, and that a new company has just been formed in this country to handle distribution.

There are already 20 titles available on cartridge and cassette, and negotiations are under way to commission further programs. An adaptor can be bought to run Colecovision games and the MSX standard could well attract a broad software base over the next couple of years.

The machine comes in a secure package, complete with user manual, power supply, tutorial cassette, modulator to provide output to a TV, and all necessary leads. One nice touch is the inclusion of an aerial splitter so that you can leave your TV antenna plugged in along with the computer, and select either at the flick of a switch.

Once switched on, the system throws a Spectravideo logo on to the screen and adds some scrolling colour effects in an attempt to impress you with its virtuoso display.

Having introduced itself, the machine then clears the screen and dumps you in Basic command mode with a bright blue background and white text, a copyright message and a rather ominous statement to the effect that you have only just under 13K of memory free for Basic programming.

For a 32K machine this comes as something of a disappointment. 16K is taken by the display and although the accompanying literature claims that a remaining 16K is user-available, this is a little optimistic. A RAM upgrade is however already in the shops.

At this point the first-time user will pick up the manual and start stabbing at a few keys in an effort to find out what he can do with his 13K. He's in for a couple of surprises.

The first surprise is the keyboard. Despite the poor reputation attached to rubber keyboards the Spectravideo's is pleasantly responsive and reliable in operation. The lay-out is well thought-out, and there are five easily redefined function keys, each with a second definition accessible using the Shift key.

The current definitions of these keys are flagged at the bottom of the screen. If you're used to a Spectrum or an Oric, for example, you'll find entering Basic programs on the Spectravideo far more attractive.

The cursor joystick is a very useful addition, both for games playing and for editing program lines. All the keys have an autor-repeat facility.

The second surprise for the first-time user is not such a pleasant one. The manual supplied with the SV-318 is excellently laid-out, in a sturdy ring-binder. It inspires confidence by its appearance but the contents can only be called a disaster.

If you are unfamiliar with Basic, you will be even more unfamiliar with it once you've read the manual. Sample programs are listed with missing lines; there are frequent misprints, some of them seriously misleading; and last and most importantly the manual gives a totally inadequate explanation of the features of Spectravideo Basic.

The manuals have apparently been rewritten, but you should check that this is the case before you buy.

The poor standard of the documentation is all the more deplorable in view of the excellent version of Basic available on the machine. The Spectravideo has a tried and tested hardware configuration that gives the programmer easy access to excellent sound and graphics. So some exciting games could be on the way.

With a machine like the Commodore 64, the hardware is let down by the limited Basic commands available and you have to spend a lot of time PEEK-ing and POKE-ing about in the memory to achieve the desired affects.

Arithmetic functions	String functions
ABS	ASC
ATN	CHR$
COBL	FRE
CINT	HEX$
COS	INKEY$
CSNG	INPUT$
EXP	INSTR
FIX	LEFT$
FRE	LEN
INT	MID$
LOG	OCT$
RND	RIGHT$
SGN	SPACE$
SIN	STR$
SQR	STRING$
TAN	VAL

In addition, there are a number of special functions for integer conversion, I/O, and for calling m/code sub-routines.

Basic Commands		Basic Statements		Interrupt Commands and Statements
AUTO	MOTOR	BEEP	MID$	ON ERROR GOSUB
BLOAD	NEW	CLICK	NEXT	ON INTERVAL = n GOSUB
BSAVE	RENUM	DEF FN	ON..GOTO	ON KEY n GOSUB
CLEAR	RUN	DEF USR	ON..GOSUB	ON STOP GOSUB
CLOAD	SAVE	DEF	OUT	ON SPRITE GOSUB
COLOR	SOUND	DIM	POKE	ON STRIG GOSUB
CONT	SWITCH	END	REM	INTERVAL ON /OFF/STOP
CSAVE	SWITCH STOP	ERASE	RESTORE	KEY n ON/OFF/STOP
DELETE	TRON	ERROR	RETURN	STOP ON/OFF/STOP
KEY LIST	TROFF	FOR	STOP	STRIG ON/OFF/STOP
LIST	WIDTH	GOSUB	SWAP	SPRITE ON/OFF/STOP
LLIST		GOTO	WAIT	
LOAD		IF..THEN..ELSE	SOUND	
MAXFILES		IT..GOTO..ELSE	SWITCH	
MERGE		LET		

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Programming is achieved by a two-digit code, which is looked up on the Programming Chart supplied, for each direction and firing button. These two numbers are then selected on a pair of leads which are clipped onto appropriately numbered strips on the interface.

Once configured this can be marked onto a Quick Reference Programming Card for storing with the game. As the programming is *not* power dependent the interface can be immediately used when next switched on.

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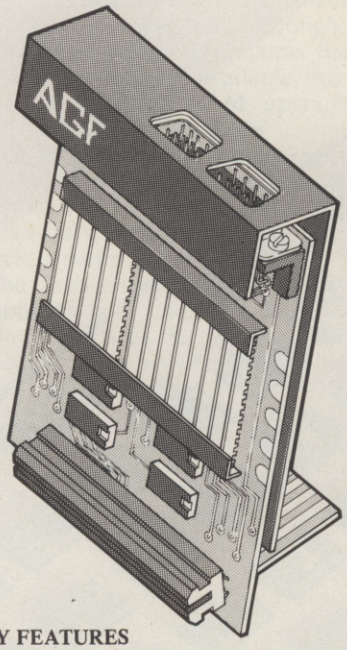

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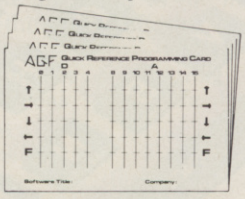
- One pack of ten Quick Reference Programming Cards for at-a-glance setting to your games requirements.



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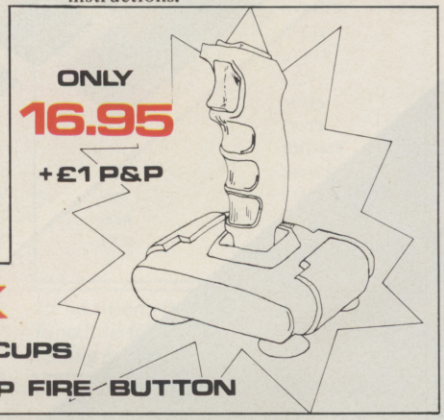

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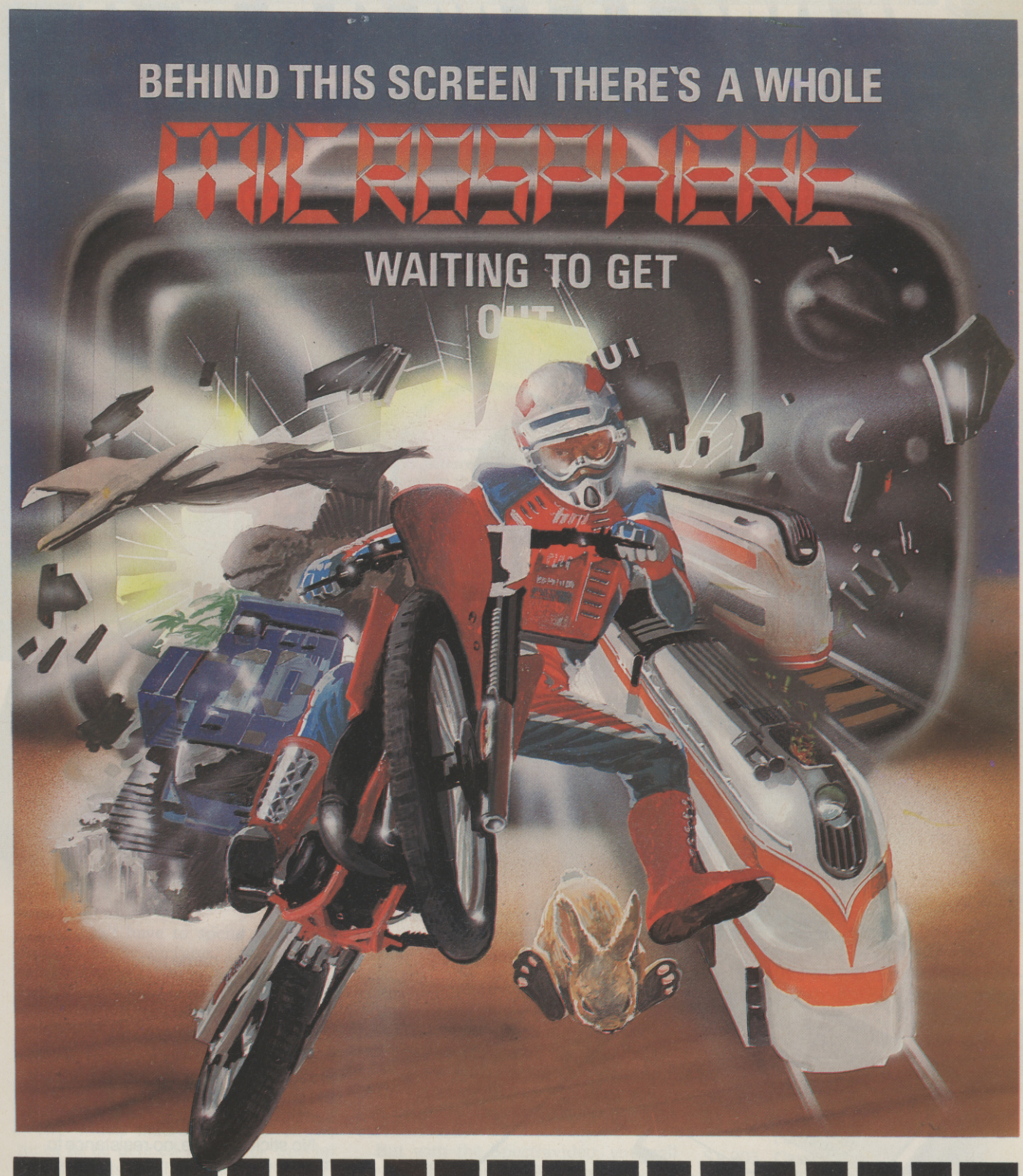

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(Home Computing Weekly 27/9/83)

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(Home Computing Weekly 3/6/83)

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from Consumer Electronics.

Not so with the Spectravideo. Thirty-two sprites and sound channels await your Basic command.

The machine operates in two screen modes, Test and 256 × 192 Hi-res. Text and graphics cannot unfortunately be mixed on screen, but the excellent graphics facilities more than make up for this.

In addition to comprehensive drawing commands, the machine offers a 'Graphics macro language' which is in effect a Logo-like turtle graphics system. Using the commands Up, Down, Left and Right you can store geometric shapes as strings and then draw them at will.

A scaling factor can be introduced, so the figures can be shrunk or enlarged. This is a powerful facility, one use of which could be to create simple 3D displays direct from Basic.

Many machines on the market offer a sprite facility, but the Spectravideo gives you 32 of them. Sprites are graphics shapes, 8 × 16 or 16 × 16 pixels in size, that once defined (as a space invader, for example) can then easily be moved about the screen, appearing in any colour, shape, or position that you tell them to.

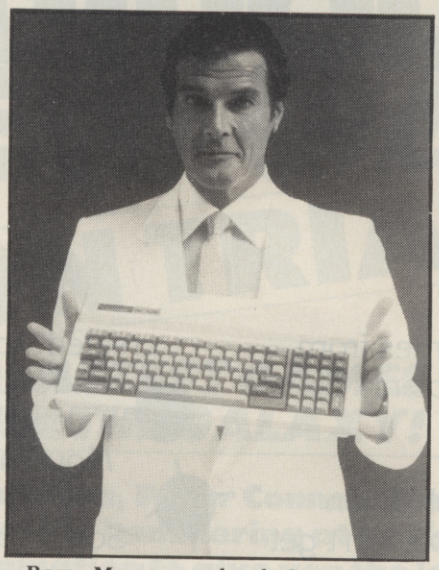
There is also a comprehensive CIRCLE command that draws circles (rather flat ones), arcs and ellipses. Rectangles can be drawn simply by defining two points for the opposing corners and adding the letter B for box.

Any geometric shape can be FILLED with colour, and any area for the screen PAINTED. The FILL and PAINT commands execute with satisfying rapidity. Putting all these facilities together gives you almost unparalleled control of the display, and all this without a single PEEK or POKE.

You don't have to spend your time drawing pretty pictures, though. You can have three-channel sound as well. The Spectravideo uses the TV loudspeaker and impressive sounds can easily be obtained.

You can get the machine to play a note just by typing in a C, a B-flat or an F-sharp and it will oblige in any one of eight octaves.

The 'Music macro language' allows tunes to be defined as strings. Special sound effects can be achieved by altering the waveform and frequency. Tempo, volume, rest periods, and pitch can all be varied using single letter commands.



Roger Moore spearheads Spectravideo's campaign in the States, where the machine has had considerable success.

Fans of the so-called 'structured' versions of Basic will lament the absence of definable procedures and commands such as REPEAT-UNTIL or WHILE-WEND.

However, as compensation, some excellent interrupt commands have been provided, including facilities for detecting sprite collisions and for branching to specific sub-routines following errors or the use of the function keys.

Compared to most cheaper machines the Basic on the Spectravideo executes rapidly, and the PRINT routines can fill the screen fast enough for all but the most demanding user.

The only point worth making here is that the Spectravideo works to an unusually high degree of mathematical accuracy, and therefore some of the maths functions are rather slow.

Without the ability to SAVE and LOAD programs, your computer will be nothing but an expensive toy. Most home computers, with the notable exception of the Commodore models, allow you to use ordinary cassette players for this essential task.

But with the Spectravideo, you will have to buy the SV-903 cassette unit.

Graphics macro language

U – Move up
D – Move down
L – Move left
R – Move right
E – Up and right
F – Down and right
G – Down and left
H – Up and left
S – Set scaling factor
B – Move but don't plot
N – Move but return to original position
A – Set angle
C – Color
X – Execute string

Music macro language

A - G Plays note
N Plays note (n)
O Sets octave
R Rest period
S Shape
T Tempo
V Volume
X Execute string

Graphics and Sound

CLS
CIRCLE
COLOR
DRAW
GET
LINE
LOCATE
PAINT
PLAY
POINT
PSET
PRESET
PUT
PUT SPRITE
SCREEN
SOUND
SPRITES
VPEEK
VPOKE

The MSX Standard

When it first appeared in this country the Spectravideo was hailed as being an 'MSX standard' machine. MSX is a software/hardware standard originality developed by Microsoft in the hope of providing a foundation for future software compatibility between different machines. It has since been adopted by Sony, Hitachi, and Sanyo among others.

In fact the Spectravideo is not a true MSX machine, since the cartridge port is slightly too small. However Spectravideo have an adaptor in production that will make the SV-318 100% MSX compatible.

Whether MSX will count for much in the British market remains to be seen, but for the games player any degree of software compatibility can only be seen as an advantage.

Loading and saving with the dedicated unit is very reliable and, at 1800 baud, acceptably fast. Useful features include an audio channel that plays back via the TV speaker and is completely separate from the data channel.

You could therefore put verbal labels, reminders, or instructions on your program tapes without disturbing the programs themselves.

The Basic supports a number of useful tape handling routines, including MERGEX and the ability to save programs as ASCII files. The cassette motor can also be controlled from Basic, and the audio channel switched in or out.

In conclusion, and with severe reservations about the manual, I can only say that the machine can do wonders for Basic programmer and games player alike.

The price is perhaps on the high side, but nevertheless this machine deserves a large share of the market.

Spectravideo prices

The following prices do not include VAT, and may be subject to fluctuation according to currency exchange rates.

No.	Item	Price
SV 318	32K colour computer	199.91
SV 903	Cassette unit	45.05
SV 803	16K ram expansion	33.54
SV 807	64K switchable ram expansion	102.82
SV 802	Centronics interface	68.21
SV 805	RS232 interface	68.21
SV 801	Super Expander	114.42
SV 602	Single Expansion Unit	14.46
SV 806	80 Column card	114.42
SV 801	Disk drive cartridge	76.26
SV 902	5¼" S/sided D/density disk drive	229.96

There are three joysticks currently available, ranging from £9.95 to £25.65.

Contact: Spectravideo Ltd., 165 Garth Road, Morden, Surrey.
Tel (01) 330-0101.

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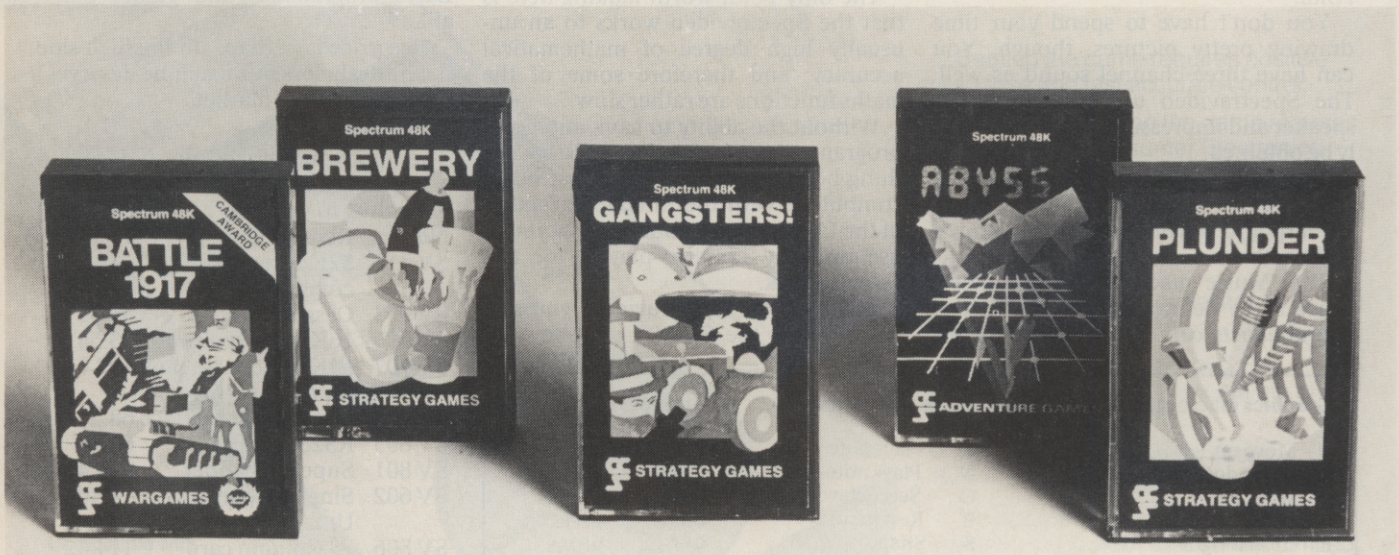
All available for Spectrum 48K at £6 (Abyss £5). Selected titles available from W.H. Smith, Boots, Rumbelows, Greens and all good computer shops or

Cases Computer Simulations Ltd.,
14 Langton Way, London SE3 7TL.



**CCS Strategy Games.
They're no pushover.**

Screen shots, ratings and our panel's expert verdicts

90 NEW GAMES ON TRIAL

WELCOME TO THE FATTEST GAMES REVIEW SECTION IN THE GALAXY!

Wensley Dale, Chris Anderson, Peter Connor, Steve Cooke and Stuart N Cooke have been incessantly hammering at keyboards and clawing at joysticks in their determination to give you the lowdown on all the latest releases.

There were so many good games this month we were hard pressed to decide which ones deserved the coveted PCG hit label. And as for the Game-of-the-Month – we've really splashed out this time.

See for yourself...

GAME	MACHINE	PAGE
Game of the Month		
Scuba Dive	Spectrum 48K	86
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Star Warrior	Spectrum 16/48K	98
Bubble Trouble	Spectrum 48K	98
Pitman Seven	Spectrum 48K	98
Doom Bugs	Spectrum 16/48K	98
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Freez Bees	Spectrum 48K	99
Armageddon	Spectrum 16/48K	99
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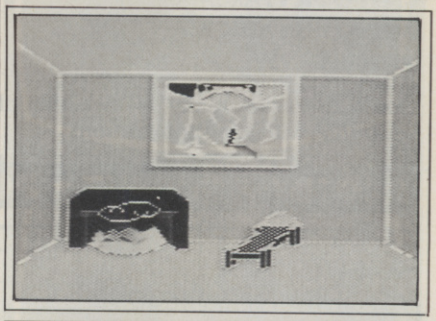
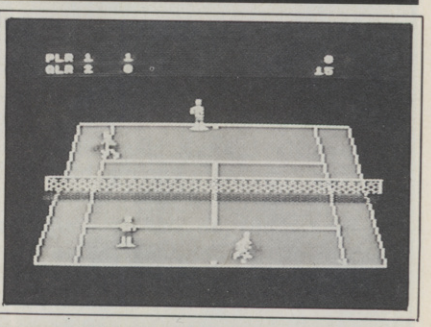
Shuttlezap	Dragon 32	111
Space Raiders	Dragon 32	111
Glaxxons	Dragon 32	111
Whirlybird Run	Dragon 32	111
Trace Race	Dragon 32	111

● Scuba Dive



● Twin Kingdom Valley



● Tennis

BBC • BBC • BBC • BBC •

GAME: 3D MUNCHY
MACHINE: BBC
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: MRM SOFTWARE
PRICE: £4.95

3D Munchy is a fast and enjoyable game based on *Pac-Man* but with a number of variations that succeed in giving new life to an old idea.

The game takes place in a simulated 3D maze, and you have to beat the clock as well as the ghosts. This is made particularly difficult because not only do the ghosts move quite quickly, but from time to time they dig holes in the maze which you cannot cross.

For this reason you are provided with three shovels with which to fill in the holes, but each shovel can only be used once.

Eating power pills turns the ghosts blue, with the usual results, but time is short and you are advised to stick to the task of clearing the maze rather than waste it chasing the opposition.

I have to admit to loss of interest in *Pac-Man*-type games, but I did enjoy

GAME: PROTEANS
MACHINE: BBC
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: DK'TRONICS
PRICE: £6.95

Proteans is a fast and furious version of the old arcade favourite *Galaxians*, in which you have to fight off the noisy swooping aliens with your rapid-firing laser.

The scenario in this case has you landing on the planet of Pelagova, whereupon you are viciously attacked by hordes of Proteans dropping their deadly Grycon bombs.

These Proteans really are very nasty customers; they fire so quickly that it takes a long time before you get through to even the second wave.

Even more alarming than their firing speed is the Proteans' habit of coming down to the ground and settling if you don't finish them off quickly enough.

After a brief rest they return to the sky leaving an impenetrable stream of Grycon bombs – quicker reflexes than mine are needed to contend with this kind of thing.

The Proteans themselves are Invader-type creatures in a variety of bright

GAME: VORTEX
MACHINE: BBC
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: SOFTWARE INVASION
PRICE: £7.95

Vortex is a fast 3D space shoot-out, where waves of attacking alien ships speed towards you from the centre of the screen, fire, and pass on. The display uses the Beeb's high resolution mode and is in black and white.

You control your craft, positioned at the bottom of the screen, using the 'A' and 'S' keys to move left and right. Your speed increases steadily the longer you manage to stay alive as you plunge through space, subject to the irresistible attraction of a black hole.

After each attack wave you find yourself in the middle of an asteroid storm. Your lasers are inoperative and the asteroids roar out from the centre of the screen. They are not easy to avoid and like everything else they get faster as the

GAME: DAMBUSTERS
MACHINE: BBC
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: ALLIGATA
PRICE: £7.95

Dambusters is really a version of *Scramble*, with a few innovations.

You fly a plane over a mountainous landscape using the 'A', 'Z', 'Space', and 'Shift' keys. Enemy aircraft may be despatched using either your nose or tail guns as appropriate and these are fired using the 'Return' and 'Copy' keys.

Hostile gun emplacements, positioned at random intervals, take the occasional pot shot at you, which must be avoided if you're not to lose one of your five lives. The guns may also be bombed, using the 'Tab' key.

No surprises so far for *Scramble* addicts, but every so often you find yourself flying over a lake, and this is where the game shows a few original touches.

A range-finder flashes up at the top of the screen and as soon as it shows zero you drop your bomb, which with any

PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★

GAME: CHUCKIE EGG
MACHINE: BBC, DRAGON, SPECTRUM
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: A & F SOFTWARE
PRICE: £7.90 (SPECTRUM £6.90)

Chuckie Egg is an excellent game available for three different machines. The BBC version has better graphics than the others, but the Spectrum and Dragon versions are quite acceptable.

The screen is divided into levels joined by ladders and is patrolled by three ducks who move up and down the ladders in search of piles of corn which then then consume.

You control a little man whose task is to collect a number of golden eggs as quickly as possible, and preferably before the ducks have polished off all the corn.

Once you have cleared the screen you get a bonus depending on how much corn you have managed to save. There is also a time limit and ignoring it costs you one of your five lives.

There are eight screens and the further you progress the more complex the screen layout becomes, with moving platforms, ladders going nowhere and eggs hovering mysteriously in mid-air. Oh, and I forgot to tell you, the ducks may look cute, but they kill on contact.

There is no joystick option on this game, but ten marks out of ten to A & F Software for allowing you to choose your own movement keys.

Not all the keys are available, and forbidden keys will vary from machine to machine, but this facility adds greatly to the enjoyment of the game. If only other software houses would follow this example...

Chuckie Egg is simple, highly addictive, and great fun to play. Easy enough for kids and compulsive enough for adults, it's worth every penny. **SC**

GRAPHICS	5
SOUND	4
EASE OF USE	10
ORIGINALITY	7
LASTING INTEREST	8
OVERALL	8

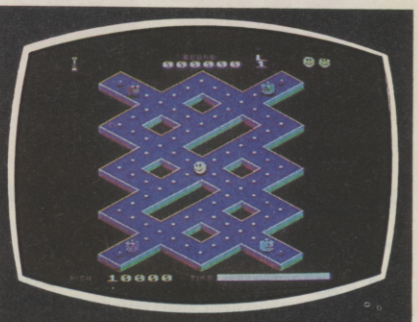
BBC • BBC • BBC • BBC

3D Munchy.

Because of the limited number of shovels available and the large number of holes, you have to plan your route carefully if you're not going to end up trapped in a corner.

The key layout is sensible and there is a hi-score table which defaults to 10,000. I spent an enjoyable two hours trying to reach that target, and rate *3D Munchy* a good buy at £4.95 **SC**

GRAPHICS	5
SOUND	4
EASE OF USE	6
ORIGINALITY	3
LASTING INTEREST	5
OVERALL	5

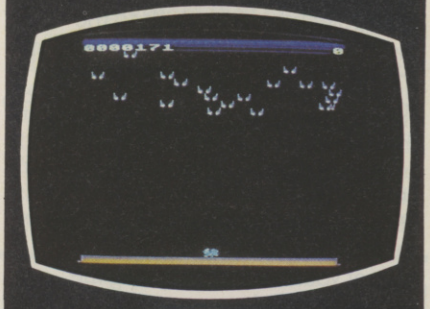


primary colours. When excited they like to twitch their claw-like legs in anticipation of blowing you to the four corners of the screen.

They come in nine slightly different forms and 36 different levels of difficulty; I frankly admit that the higher levels of the game remain a mystery to me.

The exceptional speed of this game, together with its ear-splitting sound and sharp graphics, make *Proteans* a challenging version of an old favourite. **PC**

GRAPHICS	7
SOUND	7
EASE OF USE	7
ORIGINALITY	6
LASTING INTEREST	7
OVERALL	7



game progresses. Collision loses you one of your three lives.

The sound effects are particularly effective at this stage of the game, but there is a silent play option should you grow tired of them.

Vortex is a fast, exciting game with some of the better 3D effects available on the Beeb. Recommended. **SC**

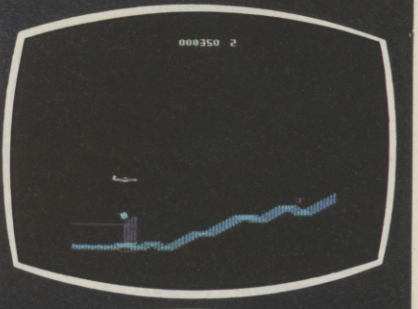
GRAPHICS	8
SOUND	7
EASE OF USE	6
ORIGINALITY	3
LASTING INTEREST	7
OVERALL	7

luck will bounce along the surface of the lake and destroy the dam at the end.

Altitude is also crucial, and to increase your chances of a hit you have to move up and down until two dots on the surface of the lake join together.

Then it's 'bombs away' – but the program warns you that the range-finder 'was developed in a hurry and therefore doesn't work all the time'. **SC**

GRAPHICS	5
SOUND	5
EASE OF USE	4
ORIGINALITY	5
LASTING INTEREST	5
OVERALL	5



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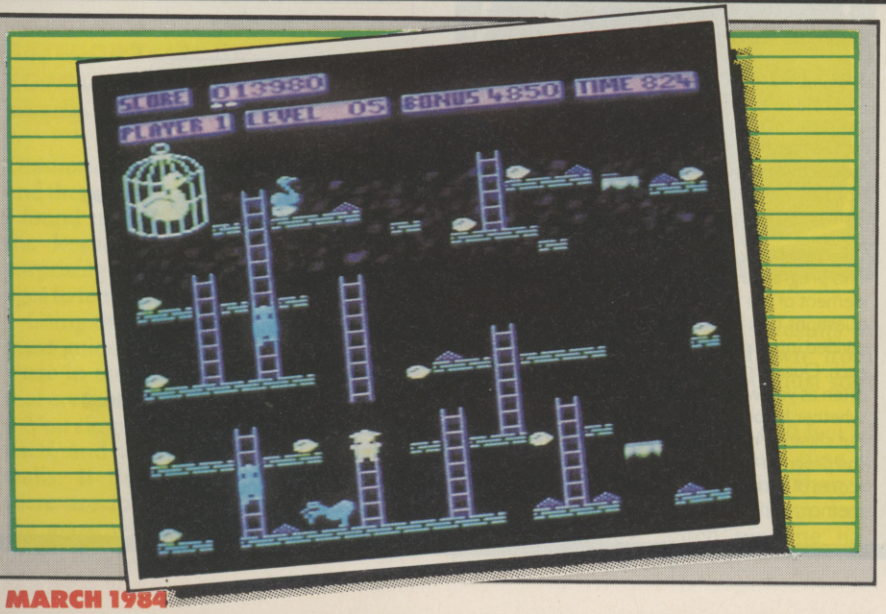
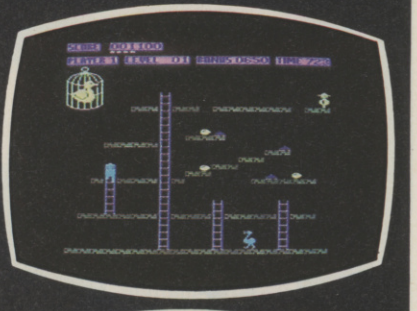
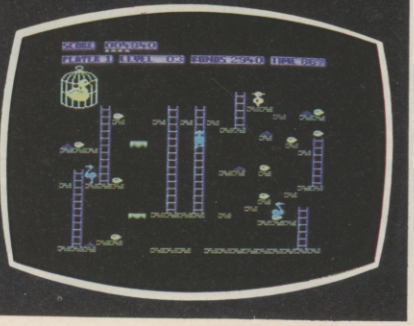






MORE GOODIES FOR THE BBC MICROCOMPUTER FROM RH ELECTRONICS

The RH lightpen is compact, little bigger than a felt-tip. It is versatile, with a sophisticated microswitch at its point which responds to the slightest pressure, and an LED lamp at the user's end to indicate data transmission. Both microswitch and LED are fully programmable.

The RH lightpen is reliable, with a rugged metal case to provide physical and electronic protection. Its sensitivity can be adjusted to the thickness and type of your TV screen, giving the highest levels of accuracy.

With the lightpen connected to your BBC Micro you can draw lines on the screen, or give commands simply by pointing to a menu.

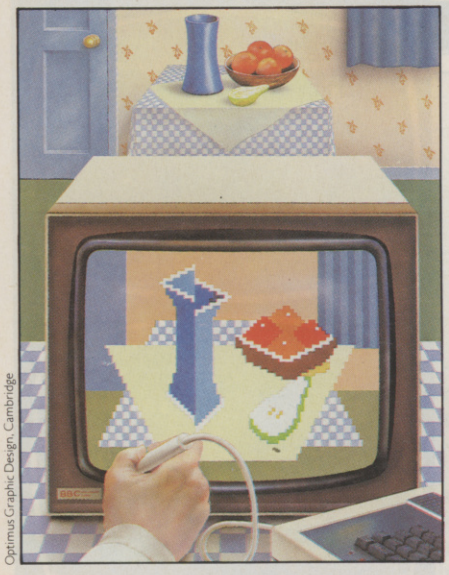
Colour-graphic software

This additional software is available so that all the colours of the BBC Micro's palette are available at the tip of your pen. Complex graphics can be created in minutes.

Art-fun software

This program is guaranteed to bring out the artist in you. It provides inspiration for users of the lightpen and provides full interaction between pen and screen.

Lightpen £45.95
40 track disc version of lightpen software £5.95
Colour-graphic software (tape) £9.95
Art-fun software (tape) £9.95



Optimus Graphic Design, Cambridge

RH Electronics has a whole series of excellent software for the BBC Microcomputer Model B. For games, business and education, they will be highly valued by any BBC Micro owner.

Plegaron People Eaters £8.95
Stop the Plegarons' path of destruction by walling them in. A game of skill (nine levels) and cunning.

Galactic Wipeout £8.95
Fight off alien attackers and meteor showers as you transport the survivors of the human race to a new planet.

Ski Slalom £8.95
Guide the skier through the 40 gate course avoiding deadly ice and landsliding snowballs.

Viper £8.95
Guide the snake around its electric cage devouring as much food as you can. Avoid touching the electrified walls, swallowing unsavoury food or causing the snake to eat its own tail.

3 in 1 (A) £7.50
This set of three games for the younger enthusiast includes: Task Force – a strategic battle of sea and air; Demolish – blast your way to freedom avoiding radioactive fall-out and falling masonry as you go; Cosmos – where you have to defend the earth from an invading battle fleet.

Ed-master £12.95
This program uses the quiz format combining the element of fun with educational teaching. 160 questions may be programmed by the teacher, divided into eight subject areas of 20 questions each. Questions and answers can be changed as often as you wish. The computer will tell the pupil whether he or she has the correct answer or not, but cheating is prevented as pupils cannot access the program to find out the correct answers. The scores of up to 40 pupils are stored in the quiz memory and are easily recalled for comparison.

Snail Trail £4.95
Help the snail escape from the maze he's fallen into before he starves to death. There are two skill levels to this cassette.

Database £12.95
A cassette for the business or home. It enables you to file, sort and access a great number of items such as diary entries, addresses, telephone numbers, accounts or other information.

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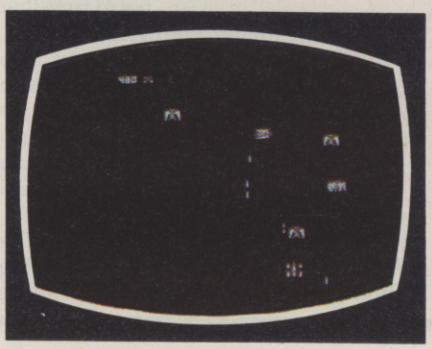
GAME: EAGLE EMPIRE
MACHINE: BBC
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ALLIGATA
PRICE: £7.95



GRAPHICS	6
SOUND	7
EASE OF USE	7
ORIGINALITY	1
LASTING INTEREST	6
OVERALL	6

Eagle Empire is a no-surprises version of the arcade game *Phoenix*.

Don't let the lack of originality put you off, it turns out to be a good game. Easy enough to get a decent score on, but challenging enough to tempt you back for another go.

The first screen features tumbling aliens who swoop about the screen to musical accompaniment as you blast away at them with your laser.

The Z and X keys move your laser base left and right respectively, and you use the Return key to fire.

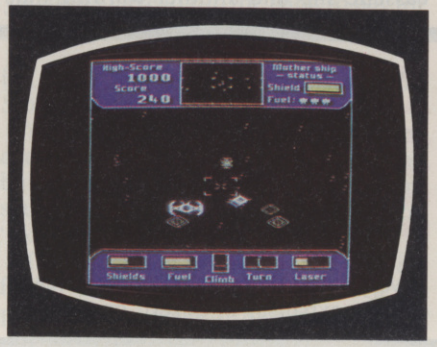
If you get into trouble at any time during the game you can switch on shields by pressing the Shift key, but you can't move or fire while they are in force.

The second screen is the same as the first, but your laser is given a repeat fire facility which enables you to clean up the little devils more efficiently.

In the third and fourth screens you do battle with blue and pink eagles who must either be hit dead centre, or else hit three times before they disappear from the screen with a satisfying ping.

If you survive the first four screens then you can have a crack at the Master Alien himself. I found the Master Alien a little too eager to give up the ghost, and after blasting my way through four screens I wanted a more exciting show-down. **SC**

GAME: CYLON ATTACK
MACHINE: BBC
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: A&F SOFTWARE
PRICE: £7.90



GRAPHICS	5
SOUND	4
EASE OF USE	9
ORIGINALITY	3
LASTING INTEREST	4
OVERALL	4

Cylon Attack is excellently documented with twelve screens of instructions and an impressive status display covering everything you need to know to stay in the game.

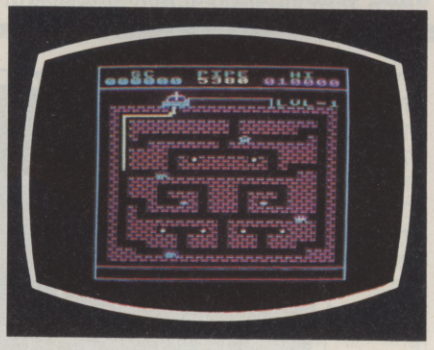
It also offers a joystick option, a fifty-name hi-score table which can be saved to tape and even a choice of different key layouts for left and right-handed people. All very impressive, but what about the game?

You find yourself on board an 'Earth supply ship' in some unidentified corner of deep space when suddenly the Cylons attack. Come, come, you weren't expecting that, were you? Ejected from the mother ship in a small interceptor craft, your task is to negotiate a settlement with the Cylons by hitting the space-bar and blasting them into small pieces.

The Cylons will take the occasional shot at you, but unless your shield energy has run out they cannot harm you. If you start to run out of fuel you may redock with the mother ship during a game and refuel, but shields are only replenished at the end of each attack wave.

Despite the excellent presentation of this game, I found killing Cylons rather tedious and repetitive. There is a £200 prize for the highest score, but sadly this program doesn't have much else to offer. **SC**

GAME: DIAMOND MINE
MACHINE: BBC
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: MRM SOFTWARE
PRICE: £4.95



GRAPHICS	4
SOUND	5
EASE OF USE	6
ORIGINALITY	6
LASTING INTEREST	7
OVERALL	5

Diamond Mine is simple in concept and the graphics are nothing special, but I found myself spending a long time at the keyboard. This is one of those surprising little games that always manages to tempt you back for another go.

Using the 'Z', 'X', '*' and '?' keys you must guide a pipeline down through a maze in an attempt to reach the jewels that are lying there.

You cannot get the pipe to go back on itself, and you mustn't let it touch the walls. If this wasn't difficult enough there are four little beasties patrolling the maze who will take a mouthful of pipe if they come across it.

Contact with wall or beast results in your pipeline being withdrawn from the maze, at which point you must start again from the top.

You start the game with 6,000 feet of pipe, and lose a length every time it collides with anything other than a jewel. Exactly how many feet you lose depends on how much pipeline has been let out at the time.

There are eight jewels to start with, and if you manage to reach one the machine gives a whoop of excitement, the pipeline turns blue, and the diamond is whisked back up to the top of the screen.

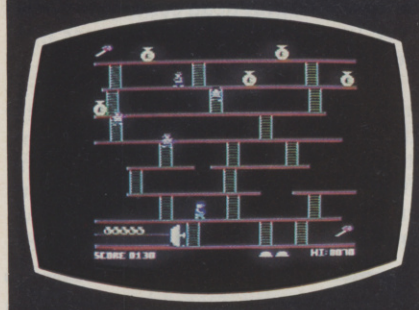
Some of the jewels are harder to reach than others and score more accordingly. There is a hi-score table (which defaults to a challenging 10,000) and a new screen appears if you succeed in clearing three mines in succession.

Diamond Mines is a simple game but quite a find for all that. **SC**

GAME: DRAGON RIDER
MACHINE: BBC MODEL B
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: SALAMANDER
PRICE: £6.50

Fancy riding a dragon from its lair in the Black Mountains into the wild blue yonder? Of course you do. Fancy playing a slow, boring game, written in Basic, that's about as challenging as a game of one-player Snap? Of course you don't. Well, I've got bad news for you...

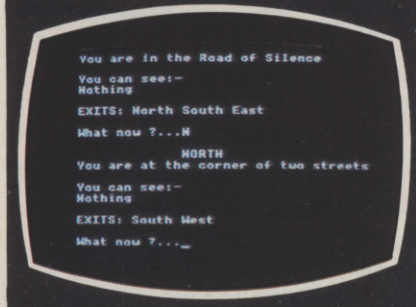
Salamander's program just doesn't make the grade. You control a dragon as it flaps ponderously about the screen, and by pressing the 'f0' key you can fire at some rather indistinct graphics shapes as they move slowly from the top of the screen to the bottom.



GAME: HEIST
MACHINE: BBC MODEL A + 32K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: SOFTSPOT
PRICE: £7.95

Heist has two copyright notices on the cassette slip and another warning that flashes on to the screen when you load the game. Softspot are obviously concerned about people robbing the bank, which is what this program is all about.

When they built this particular bank they forgot about putting in the stairs, so the floors are joined by ladders. You control a little man whose task is to run up and down the ladders collecting bags of cash before the burglars can get their



GAME: THE STOLEN LAMP
MACHINE: BBC
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: MC LOTHLORIEN
PRICE: £6.95

If you enjoy flying magic carpets over endless expanses of desert, or wandering hopelessly in a maze of deserted catacombs, then you will enjoy the search for Aladdin's lamp.

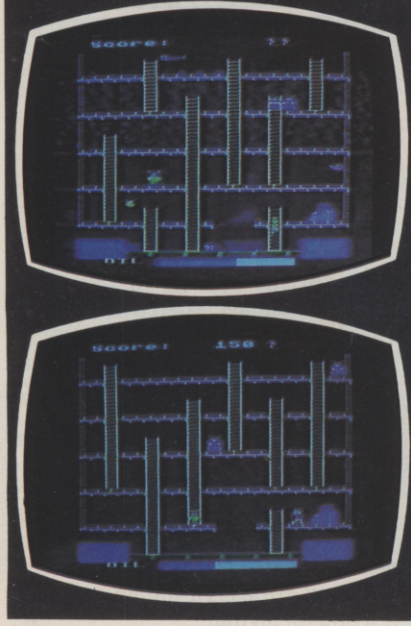
But if you are easily discouraged by such activities then you should avoid this program like the plague.

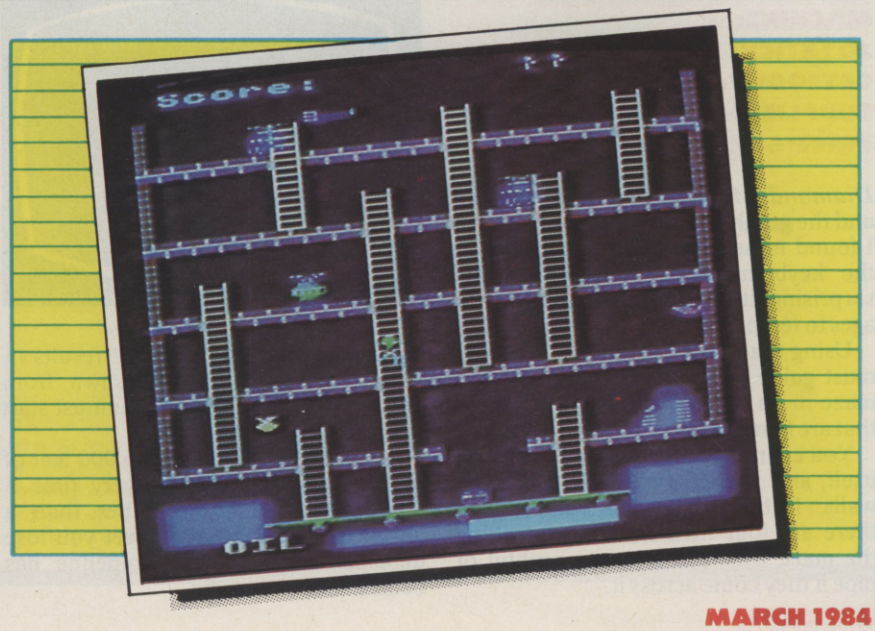
You should also avoid this program if you like your adventures to understand more than two words at a time, and if you are female.

GAME: BIRDS OF PREY
MACHINE: ELECTRON
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ROMIK
PRICE: £6.99

Here they come, in glorious flickering white, yellow, and red, tumbling down across the screen. It's the fearsome Swoopers ... the Kamikaze Birds ... it's ... oh ... it's *Galaxians*.

Yes, by kind invitation of Romik Software, the *Galaxian* tribe are preparing to invade your Electron. They give notice of their arrival with some rather scruffy looking title screens, and give a quick demonstration of aerobatics before making their exit.





• BBC • ELECTRON • BBC

If they hit the bottom of the screen there is a noise like an explosion and a bit of the ground disappears.

Your dragon only has a limited amount of energy, and changes colour as it gets tired. Once it turns black you have only a few seconds left, unless you get it down to earth and land it on a magenta-coloured rock where it can feed and replenish its energy.

You have to manoeuvre it carefully into exactly the right position before it will start to eat.

If all this is too difficult for you, you can try pressing the 'f1' key, which releases the dragon's fiery breath and wipes out two or three of the enemy at one blow. This uses more energy and the game finishes sooner, so I suppose there is something to be said for it.

The higher skill levels do little to improve the game, except that the dragon runs out of energy quicker. I'm afraid I ran out of interest long before my last dragon ran out of breath. **SC**

GRAPHICS	3
SOUND	4
EASE OF USE	6
ORIGINALITY	3
LASTING INTEREST	0
OVERALL	1

hands on him. The little chap can't manage more than one bag at a time, so as soon as he's got one he has to nip downstairs and pop it in the safe.

To help him fight off the burglars there are a couple of hammers which can be picked up and used to smite the ungodly. Once he's got all the bags stashed away, the screen clears, and then prints up the word 'Hallelujah'.

The little chap then has a quick social with one of the burglars and then it's off to the next screen, with the same objective.

The burglars are very intelligent at the higher levels. Every so often they plant a bomb at the top of the screen which you must reach before it explodes.

Not a bad game at all, this one. And you don't have to rob the bank to pay for it, either. **SC**

GRAPHICS	7
SOUND	7
EASE OF USE	6
ORIGINALITY	5
LASTING INTEREST	6
OVERALL	6

At one point in *The Stolen Lamp* you encounter a 'girl'. No objection is made if you 'Take girl' and if later you want to 'Drop girl' you find that someone turns up and walks off with 'it'. This relegation of women to the status of carpets and camels could have been easily avoided.

Finally, you should avoid this program if you like your adventures to have split-screen graphics, large vocabularies, and consistent responses. *The Stolen Lamp* has none of these.

You can either have graphics (where available) or text, not both. The vocabulary is so small it doesn't even understand words like 'Give', 'Go', 'Enter', or 'Examine'.

The only thing this program has in its favour is the potential of the idea. A potential that is unfortunately not at all fulfilled. **SC**

GRAPHICS	1
SOUND	0
EASE OF USE	3
ORIGINALITY	6
LASTING INTEREST	4
OVERALL	3

Of course they do their best to destroy you before they go, dropping bombs and attempting to ram your laser base.

Unless you want to finish the game with a score of zero you have to fight back, moving left and right with the 'z' and 'x' keys, and firing with 'shift'.

There are four levels of destruction and at the highest level the action is very fast, if a bit flickery. You have three lives, a pause control, and the option of a silent game if granny can't stand it.

Every now and then a 'Death Bomb' bleeps its way earthwards, dropping smaller bombs which make shooting it a risky affair. You don't have much choice, though, because if it reaches the bottom of the screen you lose a life.

Nothing new in this game, but if you don't mind rather small aliens it looks like a good buy. **SC**

GRAPHICS	4
SOUND	5
EASE OF USE	6
ORIGINALITY	1
LASTING INTEREST	6
OVERALL	6

GAME: FELIX IN THE FACTORY
MACHINE: ELECTRON
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: PROGRAM POWER
PRICE: £7.95

What do Snurt the Dog and Biffo have in common? They both appear on the hi-score table at the beginning of this program. I think they both cheated.

Actually it's not a bad game, this. Even deserves to be played by humans as well as dogs. You guide Felix up and down ladders as he searches for a small can of oil to top up the generator at the bottom of the screen.

Once he's found it he has to rush down and fill up the tank, otherwise the generator grinds to a halt, at which point Felix dies from shock.

To make matters more complicated, the factory floors are patrolled by Gremlins and the occasional rat. Felix can jump over the rat if he's quick, but the Gremlins will kill him if he meets them.

To help him in his task you can get him to pick up pitchforks and rat-poison as you move him about using the cursor 'down' and 'P' keys for left and right, and the 'A' and 'Z' for up and down. Pressing the cursor 'up' key makes him jump.

Once he's armed with his pitchfork, Felix can pitch the Gremlins to their death below. Using the rat poison is more a matter of luck.

Once dropped on the floor it stays there unless a rat happens to cross that part of the screen, whereupon its demise is celebrated with bonus points.

At the bottom of the screen, between the last ladder and the generator, is a conveyor belt which Felix must negotiate before filling the tank.

Once he has completed his task a new oilcan appears somewhere on the screen and our luckless hero is off again to increase his score or die in the attempt.

This is a compulsive game with good graphics. Join Biffo and his pals at the keyboard if you can. **SC**

GRAPHICS	8
SOUND	3
EASE OF USE	7
ORIGINALITY	6
LASTING INTEREST	7
OVERALL	7

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SOFTWARE: 'TEVLINK' package provides 2-machine parallel link (2 Boards needed), overall speed about 8K DATA bytes/second with error checking. A PRINT SPOOLER is included (only 1 Board needed): connect printer port to VIA board on receiving micro and use normal LIST/PRINT etc.

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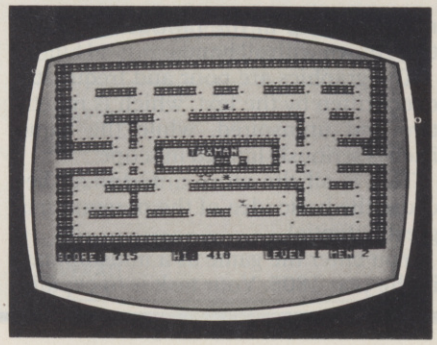
64 • COMMODORE 64 •

GAME: TAXMAN
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: MONDATTA
PRICE: £5.65



GRAPHICS	2
SOUND	2
EASE OF USE	6
ORIGINALITY	1
LASTING INTEREST	2
OVERALL	3

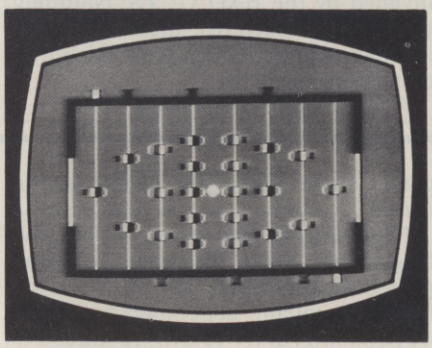
It sounded interesting; run around eating as much money as possible while avoiding the taxmen who are trying to make you bankrupt. I don't think Mondatta will have to worry about taxmen chasing them for the profits from this game, because it is pretty bad.

Taxman is, of course, a variant on *Pac-Man* and has all the usual features; maze, dots and monsters. The taxmen chasing you are small creatures with flailing arms who lurk behind walls before leaping out to grab you. If you eat a star the taxmen 'bow down to you'.

Unfortunately the graphics are dull and colourless, while the sound is a total waste of the 64's facilities.

If companies are to carry on producing versions of *Pac-Man* they have to make sure that graphics and sound are not just good but superb. **PC**

GAME: KICK OFF
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: BUBBLE BUS
PRICE: £6.99



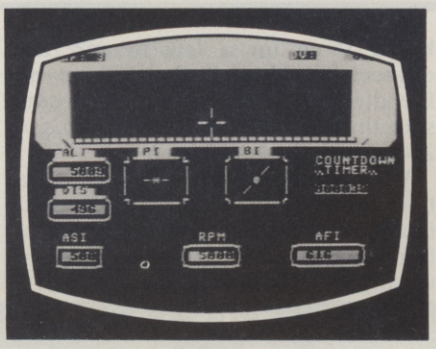
GRAPHICS	6
SOUND	4
EASE OF USE	6
ORIGINALITY	7
LASTING INTEREST	6
OVERALL	6

A table football game on a home computer doesn't sound like an exciting prospect for either table football fans or micro enthusiasts, yet *Kick Off* is a compelling game – especially with the two-player option.

The title page of roaring fans comes complete with the kind of rhythmic melody that the top Brazilian table-footballers like to loosen up to.

The screen then displays, in clear and colourful graphics, the table itself, with bars, players and goalposts. But *Kick Off*'s sound, after the opening flourish, is rather disappointing. **PC**

GAME: SUPERCOPTER
MACHINE: COMMODORE 64
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: MONDATTA
PRICE: £5.65



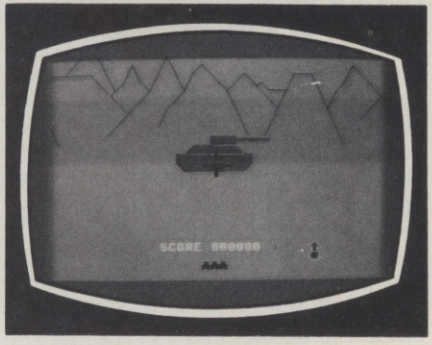
GRAPHICS	4
SOUND	3
EASE OF USE	4
ORIGINALITY	4
LASTING INTEREST	4
OVERALL	4

What do you do when an enemy power is going to explode a nuclear device and exterminate your country 'in a matter of minutes'? The answer is obvious: you load up a chopper with Special Service Troops and go off to rub out the villains.

Supercopter is a three-screen game in which you must pilot the craft to the destination. So the first screen is an internal view of the helicopter's cockpit, and the second screen is a radar map of the helicopter's flight path.

Only on the third screen do you finally reach the enemy island and get the chance to do battle. But by then you may be so frustrated that you won't care if civilization ends or not. **PC**

GAME: TANK ATAK
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: SUPERSOFT
PRICE: £8.95



GRAPHICS	4
SOUND	3
EASE OF USE	5
ORIGINALITY	4
LASTING INTEREST	2
OVERALL	3

The only exciting thing about this version of *Battle Zone* is the blurb: 'In a barren wasteland you must fend off attacks from heat-seeking missiles and robot tanks in a final desperate struggle for survival'.

Barren is certainly the word to describe *Tank Atak*'s graphics – a few faint lines are supposed to represent the mountainous landscape, while the tanks are large, green sitting ducks.

The player uses crosshair sights to aim his cannon at the enemy, who trundle in from the distance getting larger and larger. Then he shoots them.

When you destroy something you realise that *Tank Atak*'s sound is as disappointing as its graphics. Vaporizing a tank produces a noise like stubbing a cigarette out in a bowl of water. **PC**

ODORE 64 • COMMODOR

GAME: SHIP OF THE LINE
MACHINE: COMMODORE 64
JOYSTICK: NO
CATEGORY: STRATEGY
SUPPLIER: RICHARD SHEPHERD SOFTWARE
PRICE: £6.50

Richard Shepherd Software can usually be relied on for a few hours' entertainment but *Ship of the Line* seems likely to go down with all hands.

The graphics are poor and frequently overwritten by the text, which is repetitive and uninspired, while the game itself is seriously limited in scope.

This is all the more unfortunate because the basic idea of the program has great potential.

You enter the game as a midshipman in the year 1805. Your task is to captain a ship as you ply the seven seas in search of the opposition.

Battle consists of a series of broadsides from each ship until one side either sinks or surrenders.

Ship of the Line is described as an 'adventurous strategy game', but it's not an adventure and not much of a strategy game either.

The only factors you are able to take into account during play are the number

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GAME: NEOCLYPS
MACHINE: COMMODORE 64
JOYSTICK: YES
CATEGORY: ARCADE
SUPPLIER: P.S.S.
PRICE: £7.95

Neoclyps is a kind of *Scramble*'d *Defender* or, if that doesn't make sense to you, a version of the Atari 400/800 game *Protector*. If that doesn't make sense either, then I'll explain.

You, says the blurb, are the GOOD GUY, whose planet Neoclyps has been invaded by the BAD GUYS. Naturally you want to pulverize these villainous invaders and get your planet back; but that's not so easy.

As in *Scramble* you have a ship which you pilot over an uneven landscape. Your opponents are located in various radar towers close to the ground and also whirl about in the air in the form of missiles. To destroy the towers it is necessary to first destroy a missile; this then gives you a shield which enables you to fly through buildings. So you swoop down, blast the towers and get out quick. Since the shield only lasts

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GAME: BLAGGER
MACHINE: COMMODORE 64
JOYSTICK: YES
CATEGORY: ARCADE
SUPPLIER: ALLIGATA
PRICE: £7.95

'Blagger' is Cockney slang for robber, and thus makes sense as a title for this game, since it's a rip-off of *Manic Miner*.

Beginning in the bank, where the blagger has stolen his swag, the game progresses through 30 screens until the hero – or villain, depending on which way you look at it – returns to the safety of his home with his ill-gotten gains.

As in *Manic Miner* there is a multitude of keys to collect before you can exit from any one screen.

On the first screen there are electrified trees, walls, conveyor belts and also a malevolent trolley. Using the joystick to jump and move forwards you travel round the screen collecting the keys and hope to escape to screen two.

On further screens you will be attacked by rampant skulls, chomping jaws, evil telephones and unfriendly Chinese

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GAME: KRYSTALS OF ZONG
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE ADVENTURE
SUPPLIER: P.S.S.
PRICE: £7.95

What happens if you leave Pac-Man and an adventure hero together in a darkened room for a few hours? The chances are that, if they are at all friendly, they will end up spawning something along the lines of *Krystals of Zong* – an 'arcade adventure'.

What this means is that you get a traditional arcade game with the addition of the treasure-gathering element from adventures. It also means that you usually get the worst of both worlds: a poor game and a dull adventure.

Krystals of Zong, though, is different. It has excellent graphics and a number of winning features which lift it out of the rut of *Pac-Man* clones. Its arcade elements do not make for a strenuous test of intuition or intelligence, but do add to the fun of the game.

The treasures are to be found in rooms at the centre of mazes. The game has

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GAME: TWIN KINGDOM VALLEY
MACHINE: COMMODORE 64
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: BUG-BYTE
PRICE: £9.50

This is a great adventure. I've been playing it on and off for a week and still haven't tired of it. It has a reasonable vocabulary, excellent graphics, and some exciting possibilities.

You start outside your rented cabin in Twin Kingdom Valley and your objective is to amass as much treasure as you can.

If this sounds depressingly familiar, don't be put off because the game is varied and original. Some situations demand that you forfeit whatever treasure you have collected, while others offer you interesting rewards in return for challenges undertaken.

At no point does this adventure degenerate into a mindless game of the 'let's find yet another bag of gold' variety.

Every location has a picture and there are an impressive number of display options which can be changed at any time. Don't skip the graphics – they're excellent (some with animated sprites) and most draw in under 10 seconds, which makes them the fastest I've seen.

Other creatures come and go as you wander about. Elves are usually friendly and will give you whatever they have if you ask them for it. Others may refuse, or even attack you if you give them half a chance.

Your environment ranges from sandy beaches and deserts to caves and waterfalls. Twin Kingdom Valley is a big place and it's easy to get lost, so map-making is advisable.

This is a game that will appeal to novices and experienced adventurers alike. Highly recommended. **SC**

GRAPHICS	9
SOUND	NONE
EASE OF USE	8
ORIGINALITY	6
LASTING INTEREST	8
OVERALL	8

RE 64 • COMMODORE 64

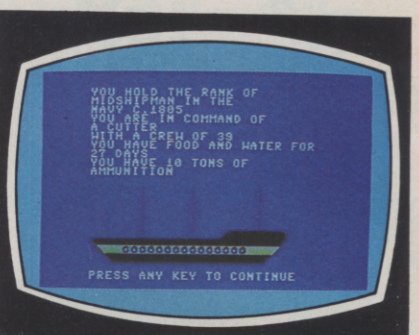
of men under your command and your supplies of food and ammunition.

When at sea your only options are to continue in the same direction, engage in battle, or return to port.

During play the program lacks entry validation, so if you enter 'Atttack' instead of 'Attack' you find yourself running in the opposite direction.

Ship of the Line is a great idea, but poorly implemented. Old sea-dogs may appreciate the game, but the rest of us should be content to miss the boat. **SC**

GRAPHICS	3
SOUND	2
EASE OF USE	4
ORIGINALITY	6
LASTING INTEREST	5
OVERALL	4

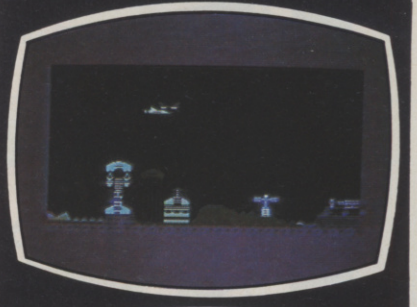


four seconds even at the lowest level – this is easier said than done.

Neoclyps has four combat zones, each with different opponents. The graphics and landscape are remarkably good, with arcade-quality definition.

Although *Neoclyps* is a fine shoot-'em-up it would be improved if the player had a scanner to survey the enemy, and if the game occupied rather more of the screen than it does. **PC**

GRAPHICS	8
SOUND	7
EASE OF USE	6
ORIGINALITY	6
LASTING INTEREST	6
OVERALL	7



coolies. It's not at all easy escape them, making this one a tough struggle.

All these enemies are created in very clear graphics and present the player with a stiff test of skill. Unfortunately, rather than 30 entirely different screens the opponents make several appearances.

However, if you liked *Manic Miner*, *Blagger* will undoubtedly appeal to you, despite its repetitive sound. **PC**

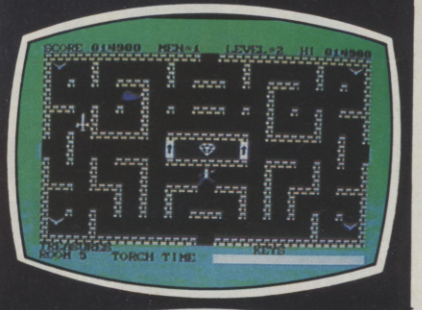
GRAPHICS	8
SOUND	4
EASE OF USE	6
ORIGINALITY	4
LASTING INTEREST	7
OVERALL	7

eight levels, each with nine rooms.

To enter the rooms you must find the key which corresponds to the colour of the maze. Since the keys are distributed randomly, this can take quite some time.

Guarding the treasures are snakes, bats, spiders and mummies. The snakes, in particular, are very fetching monsters. They undulate nastily and when they have devoured you they seem to sneer in a very supercilious fashion. **PC**

GRAPHICS	8
SOUND	7
EASE OF USE	7
ORIGINALITY	6
LASTING INTEREST	7
OVERALL	7



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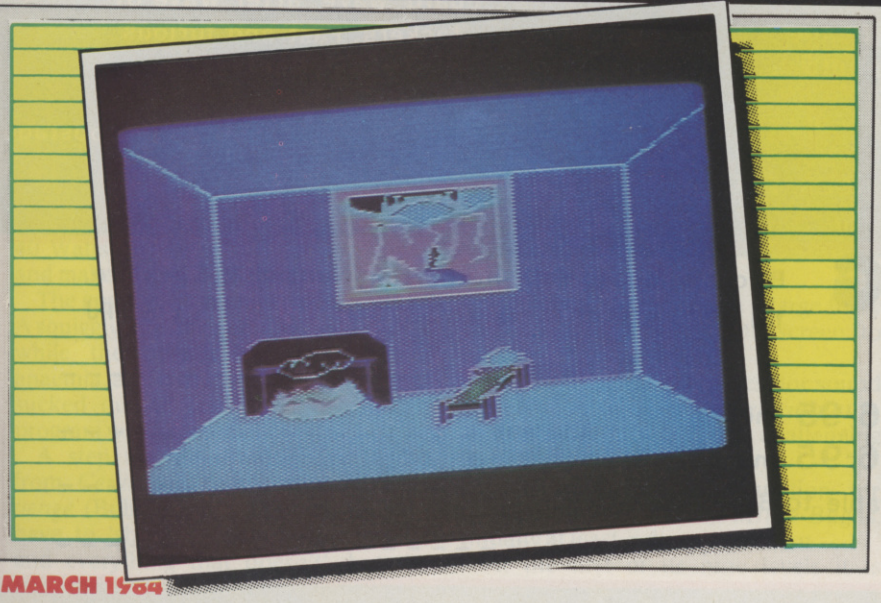

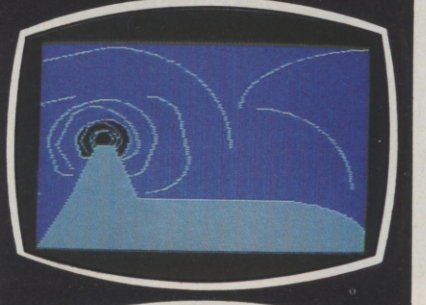

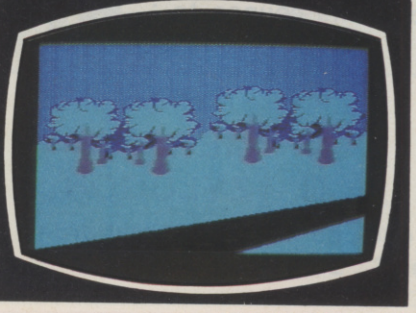

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Scared by crawlies scuttling round your bathtub...? Now's the time to get your own back on the insect world! Peter Connor battles five versions of *Centipede* for the 64

The joy of *Centipede* is quite simple; mass murder. As the instructions to the aptly named *Exterminator* say: 'Shoot everything that moves and everything that doesn't'. Plug in, load up and blast away.

The idea, as any fool knows, is to use your laser base to destroy the creature of many legs as it comes snaking, or rather centipeding, down to the bottom of the screen. On the way it lays a protective screen of mushrooms which get in the way of your murderous fun.

Other opponents encountered in the game include bouncing spiders, very fast snails, garden bugs and, sometimes, lethal birds. Shooting any of these brings a substantial bonus and a lot of satisfaction.

Sound is always an important thread in the rich tapestry which is *Centipede*. It doesn't really matter what kind of noise it is as long as it's loud and annoys the neighbours.

Exterminator (Bubble Bus, £3.99) fulfils all of these conditions. It has clear, colourful graphics and moves very fast. The sound is suitably loud and unpleasant. The blurb tells you to 'use the spray gun' (i.e. the laser) to destroy the nasty bugs invading the garden. The actual centipede is a hairy crawler which leaves a trail of bright green and yellow stools as it descends. Additional attractions are a speedy scorpion and a frightening bird which dive bombs your spray gun.

A version of similar quality is Alligata's *Bugblaster* (£7.95). Here the graphics do not have the same sharpness but, in compensation, have a nursery-rhyme charm which only adds to the horror of the proceedings.

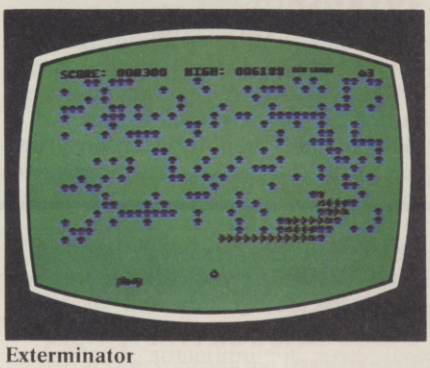
The snail, in particular, is a charming creature with his wobbling antennae and pink shell. Charming or not, though, 'Brian' must be blasted.

With a good variety of bugs, munching centipede segments and staccato sound effects *Bugblaster* delivers the goods.

Cosmic Split (£7.95), unfortunately, is not a good version. Your laser resembles an upturned light-bulb with about 40 Watts of power; it fires very slowly and makes a very dull noise.

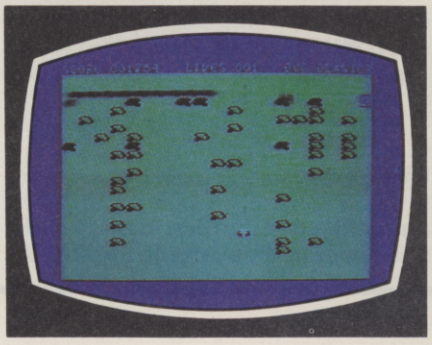
The graphics don't measure up either. A squiggly line masquerades as 'a snake' while the overall effect is one of anaemia, as if a rival software house had sucked out all the blood before this program was released.

A step up the evolutionary ladder from *Centipede* comes *Widow's Revenge* (Bubble Bus, £5.99). Again, you have to 'shoot everything that moves and everything that doesn't', but the twist is that now your opponents will shoot back if provoked.



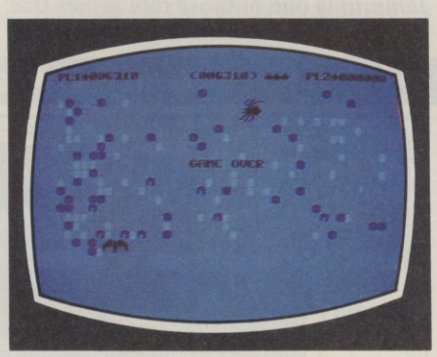
Exterminator

Instead of a centipede there are numerous warrior ants marching across and down the screen. If they eat one of the white 'energy eggs' they release a deadly photon web which spells your doom.



Bugblaster

Zooming around the screen is a flying egg layer; if you hit it you drive it back to the top and give yourself a much needed breathing space.



Widow's Revenge

The widow of the title is a large hairy spider crawling across the screen to provide a juicy bonus.

Although neither graphics nor sound are quite so sharp as in *Exterminator*, *Widow's Revenge* is a more challenging game and great fun to play.

DK'Tronics have a reputation for quality software, so their *Millie-Bug* is, initially at least, a disappointment.

At the first of its nine levels it is unbearably slow. However, on the higher levels it becomes much faster and more like the *Centipede* we all know and love.

Graphically the game is very good, with lots of different beasts. Of special interest is a green tortoise who speeds across the screen inexplicably wearing a top hat.

But despite a jaunty opening tune, *Millie-Bug's* sound is *far* too quiet.

EXTERMINATOR

GRAPHICS	7
SOUND	7
EASE OF USE	7
ORIGINALITY	5
LASTING INTEREST	7
OVERALL	7

BUGBLASTER

GRAPHICS	7
SOUND	6
EASE OF USE	7
ORIGINALITY	5
LASTING INTEREST	6
OVERALL	6

COSMIC SPLIT

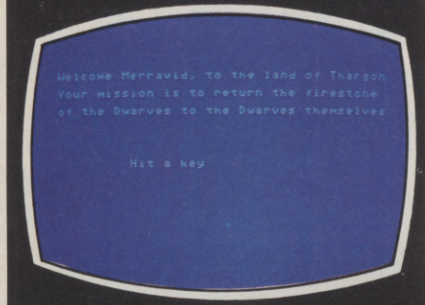
GRAPHICS	5
SOUND	5
EASE OF USE	7
ORIGINALITY	5
LASTING INTEREST	4
OVERALL	5

WIDOW'S REVENGE

GRAPHICS	6
SOUND	6
EASE OF USE	7
ORIGINALITY	7
LASTING INTEREST	7
OVERALL	7

MILLIE-BUG

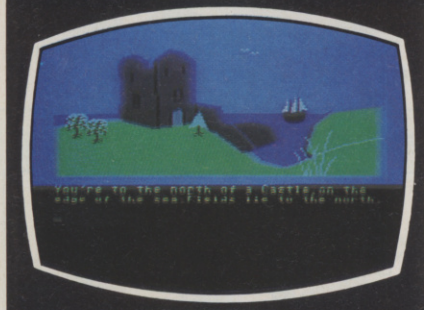
GRAPHICS	7
SOUND	5
EASE OF USE	7
ORIGINALITY	5
LASTING INTEREST	6
OVERALL	6



GAME: QUEST OF MERRAVID
MACHINE: COMMODORE 64/VIC 20 + 16K
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: MARTECH
PRICE: £7.95

With so many graphic adventures coming on to the market, text-only games must have something special to offer if they're going to be worth buying. What's special about this one?

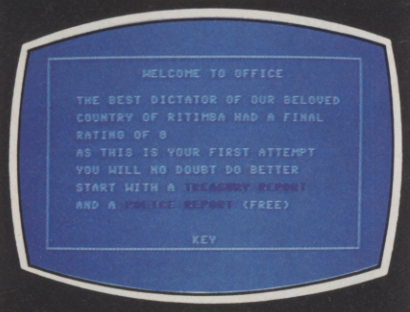
For a start, the text is well-written and the locations are carefully thought-out. Add to that a dry sense of humour and you'll soon find yourself forgetting about the lack of graphics and appreciating the almost forgotten powers of your own imagination. More importantly, you don't have to wait for ages while the



GAME: HEROES OF KARN
MACHINE: COMMODORE 64
JOYSTICK: NO
GAME CATEGORY: ADVENTURE
SUPPLIER: INTERCEPTOR SOFTWARE
PRICE: £7.00

This is an excellent adventure in which you have to amass as much treasure as possible and rescue the four Heroes of Karn, who, once found, will aid you in your quest.

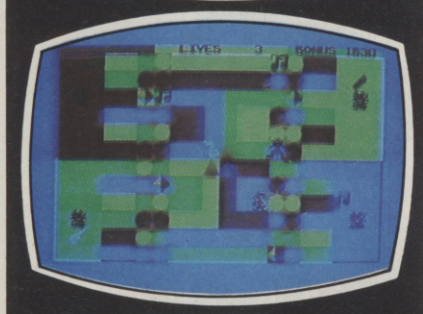
The program has a large vocabulary and accepts complex commands. 'Attack giant clam with shovel' is acceptable and so are instructions delivered to other characters: 'Say to Beren "attack barrowight with tinderbox"' will send Beren into action, though not



GAME: DICTATOR
MACHINE: COMMODORE 64
JOYSTICK: NO
CATEGORY: STRATEGY
SUPPLIER: DK'TRONICS
PRICE: £5.95

An earthquake has just destroyed the neighbouring province of Leftoto, the Secret Police are planning to assassinate you, and the peasants are revolting. If you've ever fancied playing the bully boy in a banana republic then this is the game for you.

The object of *Dictator* is simple. Stay in power as long as possible, transfer as much of the public's money as you can to your Swiss bank account, and then escape alive to enjoy it.

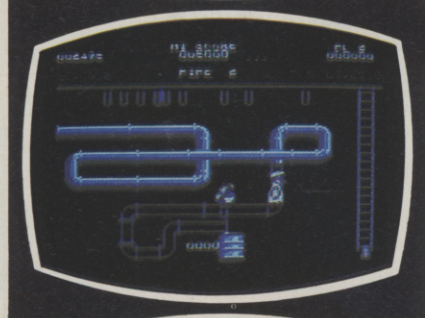


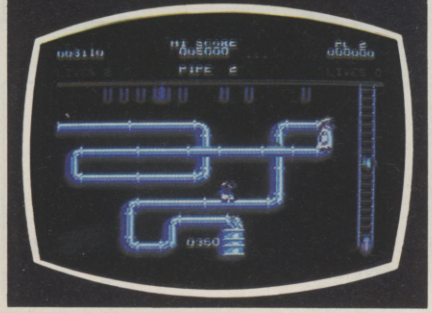
GAME: JAMMIN
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: TASKSET
PRICE: £6.90

Jammin is one of those rare games that should appear in a category all of its own.

Not only is the idea 100 per cent original, but it involves the best yet use of musical effects.

You control a little man whose task is to collect four musical instruments from the corners of the screen. Each area of the screen has its own colour, and you move from one area to another by hopping on and off conveyor belts.





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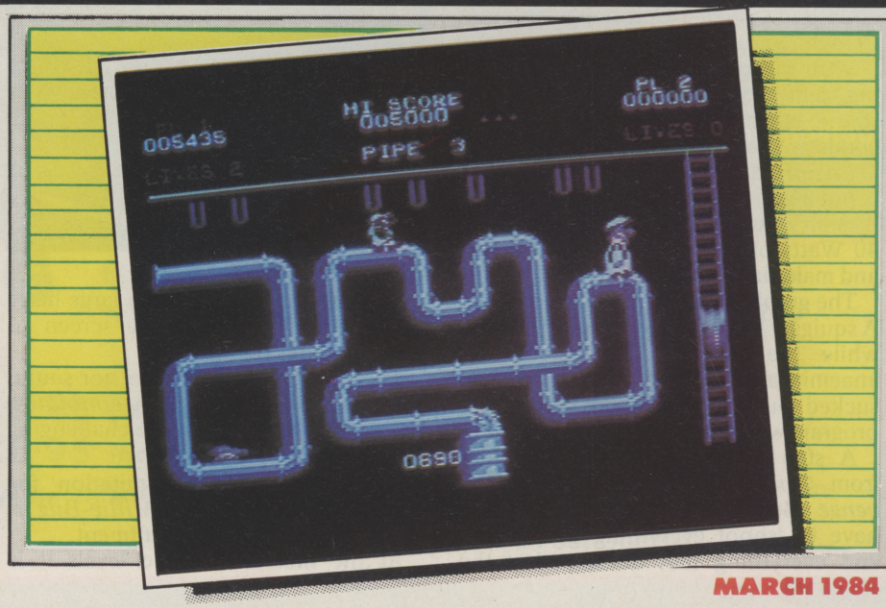

RE 64 • COMMODORE 64

machine draws pictures.

The program has a good vocabulary, but annoyingly it will not tell you which words it doesn't understand. This means you have to spend a lot of time trying different commands and wondering exactly which word it is that the machine is objecting to.

Abbreviated commands are accepted, with the inexplicable exception of N, S, E, and W, where you have to say 'Go N' rather than just 'N' etc.

Whatever its shortcomings, *Quest of Merravid* is an enjoyable adventure. You can quaff ale in the local pub, chat up the barmaid, and investigate some unusual locations as you collect your weapons in preparation for a fight to the death with an angry dragon.

It is one of the better text adventures on the market, and if I have to choose between pretty pictures and exciting locations I'll choose the excitement every time. **SC**

GRAPHICS	TEXT ONLY
SOUND	TEXT ONLY
EASE OF USE	5
ORIGINALITY	7
LASTING INTEREST	6
OVERALL	6

necessarily with the desired effects.

You may also command animals to attack other animals – within reason. Setting a frog on a bear is hardly going to impress the bear and wouldn't do much for the frog, and the program treats such suggestions with appropriate disdain.

Every location has a graphic display and some are accompanied by the best music I've yet heard on the 64.

The only drawback with this game is the amount of time you have to spend trying to find out which words are acceptable. If the program doesn't understand something it apologises politely, but doesn't tell you which word it doesn't understand.

Apart from the annoyances mentioned above, *Heroes of Karn* represents excellent value for money and is highly recommended. **SC**

GRAPHICS	8
SOUND	9
EASE OF USE	3
ORIGINALITY	6
LASTING INTEREST	7
OVERALL	8

Yes, you guessed it, there's not much difference between being President of Ritimba (national anthem 'Yes, We Have No Bananas') and being MP for Puddleby-On-The-Marsh.

Your rule is measured in months, and each month you are required to take decisions following petitions from one faction or another.

In deciding whether to grant requests or turn a deaf ear you have access to secret police files (always provided you haven't offended the secret police) and may request additional advice from the all-knowing machine.

Those of you who must have flashy graphics and sound at all costs should avoid this program, likewise those of you who are interested in a serious simulation of running a country. The rest of us can have a good laugh. **SC**

GRAPHICS	TEXT ONLY
SOUND	TEXT ONLY
EASE OF USE	6
ORIGINALITY	6
LASTING INTEREST	7
OVERALL	6

The conveyor belts are divided into coloured sections, and you can only step onto a section that matches the colour of the area you are standing on.

As you move about the screen the machine beats out some very catchy rhythms, and any time you step onto a conveyor belt it launches into a faultless imitation of a hot-lickin' jazz-funk band.

Once you've got your instrument you have to return it to its allotted space in the centre of the screen. Musical notes patrol the screen and will attempt to pinch your instrument from you, whereupon you have to start again.

This game is excellently presented with numerous playing options and is for one or two players. Grab yourself an instrument and join the band. **SC**

GRAPHICS	6
SOUND	9
EASE OF USE	10
ORIGINALITY	7
LASTING INTEREST	8
OVERALL	8

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GAME: SUPER PIPELINE
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: TASKSET
PRICE: £6.90

Great music. Great graphics. Great game. That's *Super Pipeline.*

Joe Bloggs and his mate are out fixing pipes. You give them a hand by guiding Joe along the pipe, while his mate follows dutifully behind. Oil gushes through the system to end up in a barrel and once that's full you move on to the next screen.

Sounds cushy? It's not. Lobsters, pipe-bugs, and other saboteurs scramble up a ladder to the top of the screen and launch themselves at you with the most vicious intentions, or else drop metal wedges that rupture the pipe and stop the oil from getting through.

Joe and his mate make a great team, though. One carries a spanner, the other a Smith and Wesson 45. While his mate fixes the holes, Joe blasts away at the opposition as they climb up the ladder, or crawl towards him along the pipe.

He can't kill the lobsters, who will drag his mate to oblivion if they catch him, and he has to watch out for falling bugs and metal wedges.

If the pipe gets blocked, you must get Joe to lead his mate to the scene of the crime. The eager young lad then hammers away until the pipe is fixed.

Trouble is, while Joe is busy leading Junior to the break, or fetching him when he's finished his task, the enemy have seized the opportunity to scramble up the ladder behind his back...

If Junior dies on the job, Joe has to nip back to the beginning of the pipe and pick up another volunteer. Business is good at the job centre, and there is an unlimited supply of plumber's mates, but you can only have up to eight Joes.

This is one of the best games for the Commodore 64. Don't miss it. **SC**

GRAPHICS	9
SOUND	9
EASE OF USE	7
ORIGINALITY	7
LASTING INTEREST	9
OVERALL	9

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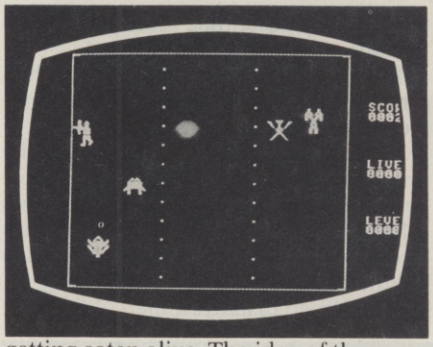
GAME: EGBERT
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: GAMES MACHINE
PRICE: £7.95



GRAPHICS	3
SOUND	2
EASE OF USE	4
ORIGINALITY	6
LASTING INTEREST	2
OVERALL	3

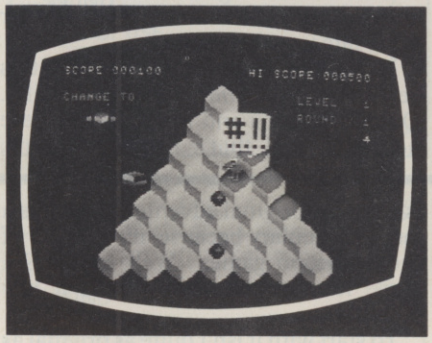
There are some games which are simple but challenging. Others are simple and addictive. *Egbert* is just plain simple.

The screen divides into three columns. Aliens of various shapes rush up and down the two outside lanes, making it very difficult for poor Egbert (that's you) to leave the middle lane without getting eaten alive. The idea of the game is to cross the fast lanes and make contact with little red buttons as they appear on the sides of the screen.

There is one complication. Egbert is holding an egg which he is not allowed to take with him on his travels.

He therefore has to climb to the top of the screen, release the egg and then return to the centre lane in time to catch the egg before it hits the floor. **SC**

GAME: R-NEST
MACHINE: COMMODORE 64
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: AUDIOGENIC
PRICE: £6.95



GRAPHICS	7
SOUND	5
EASE OF USE	5
ORIGINALITY	6
LASTING INTEREST	6
OVERALL	6

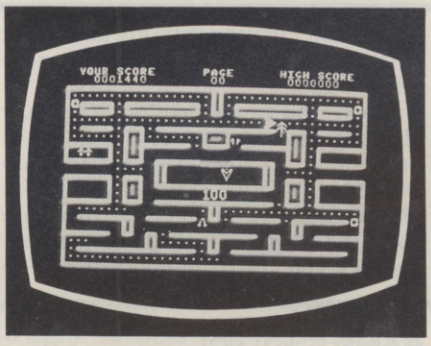
What's in a name? *R-Nest* is a pseudonym for *Q-Bert*, the game in which you have to paint the cubes on a 3D pyramid while avoiding hungry monsters. It's a rather good version with some individual features.

R-Nest himself is a cute little figure with an alarmingly big nose who hops around energetically trying to do his job.

His main opponent is Gargal the snake, accurately described in the blurb as looking like 'a mutant bedspring'.

R-Nest's graphics are colourful, but do have that slight haziness which Commodore 64 owners will be familiar with. Sound is a little weak, but this is a game where it shouldn't matter too much. **PC**

GAME: ZAPPY ZOOKS
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: ROMIK
PRICE: £6.99



GRAPHICS	5
SOUND	4
EASE OF USE	7
ORIGINALITY	4
LASTING INTEREST	3
OVERALL	4

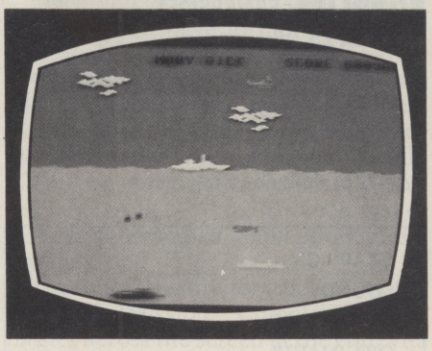
In case you don't know what you're doing in *Zappy Zooks* Romik provide this helpful tip: 'The object of the game is to get the highest score.' Well, just fancy that.

The game itself is no more original than its object; it is yet another version of *PacMan*. The monsters in this case are the Zooks of the title.

The player's man is Whirly, who, as his name suggests, whirls around trying to eat the dots in the maze.

Despite having several levels, *Zappy Zooks* never gets fast enough to be really engrossing. The graphics are no more than adequate and the sound is a complete waste of the Commodore's great potential. **SC**

GAME: MOBY DICK
MACHINE: COMMODORE 64
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: P.S.S.
PRICE: £7.95



GRAPHICS	6
SOUND	4
EASE OF USE	7
ORIGINALITY	6
LASTING INTEREST	5
OVERALL	6

Few computer games have a moral, but *Moby Dick* carries a message that will warm the cockles of any conservationist's heart: killing whales is wrong.

Of course, since this is a computer game killing just about everything else is fine. The idea in *Moby Dick* is to depth charge submarines from the destroyer you are skippering at the same time as trying to down a pink helicoper with your missiles.

Should you hit the whirlybird the pilot will bail out; you must try to save him before he goes to a watery grave.

As you steam across the deep blue sea it is pretty easy to get the subs with your depth charges. It's also easy to turn the great white whale, Moby Dick, into so much cat food. But while this would've pleased Captain Ahab no end, it's big trouble for you. **PC**

GAME: LOCH NESS MONSTERS
MACHINE: ORIC 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ROMIK
PRICE: £6.99

Och aye, 'tis a terrible story; one fit tae tickle the sporran of many an Oric owner. Did ye not know that over the centuries Nessie has evolved into a vicious man-eating beastie?

Not only that but there's more than one of them and an unacceptable number of tourists are being eaten.

In this game your job is to keep the number of Nessies down to a reasonable level. But how do you kill a Loch Ness Monster? Apparently you can harpoon them like whales or drop a poisoned fish on them.

The screen displays a map of the loch with areas of shore, water and vegetation. Also displayed are many fish, some normal some poisoned. The player sets off in his wee boat in search of his monstrous quarry.

Exterminating them is no easy business. With the harpoon you must hit them head on, otherwise they merely fragment and cause you even more problems. A more efficient method is to get them to eat poisoned fish. Unfortunately, you must pass over 25 ordinary

GAME: DEFENCE FORCE
MACHINE: ORIC 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: TANSOFT
PRICE: £7.95

Life's tough out in the further reaches of the star system Sol. Vulturae are kidnapping the few remaining humanoids; how can they survive? Only by a display of great skill and courage from the pilot of *Defence Force.*

If he has the right stuff he might be able to save the humanoids before their grisly fate is sealed.

It won't be easy, though, because this version of *Defender* is pretty nifty. Quick reactions and nerves of steel are needed – and that's just for loading. After that all hell breaks loose as the various aliens start whizzing around.

For those of us with nerves of putty rather than steel, Tansoft have thoughtfully provided a beginner's version which gives you a gentle foretaste of the horrors to come. Here you can take a good long look at the alien adversaries.

There are 16 different alien forms to contend with. The aforementioned Vulturae must be blasted before they get to

GAME: HOUSE OF DEATH
MACHINE: ORIC
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: TANSOFT
PRICE: £9.95

Tansoft are not exactly modest when it comes to describing *House of Death.* It is a 'totally original adventure' and has a large vocabulary because 'it's not one of those cheapo games'. Well, at £9.99 I agree it's not 'cheapo', but is it any good?

To start with it isn't quite as original as you might have been led to believe. It is a standard text-based adventure that accepts abbreviated commands as you explore an abandoned film-studio hunting for treasure.

The building is haunted by various ghouls and beasts whom you should avoid at all costs (with one or two exceptions). The only special features are a larger-than-average vocabulary, a time limit, and the occasional sound effect.

In its attempts to prove that it isn't a 'cheapo' game the program sometimes

GAME: MULTIGAMES 2
MACHINE: ORIC 48K
JOYSTICK: NO
CATEGORY: COMPENDIUM
SUPPLIER: TANSOFT
PRICE: £6.90

The blurb tells you that this tape contains 'five challenging games' for the Oric. Well, I'm not at all sure about that 'challenging' but it certainly does contain five games.

When you've carried out the truly challenging business of loading the program on to your Oric you are confronted with *Subs.* This is a game with challengingly awful graphics; your ship could be anything, as could the submarines you try to depth-charge. The sea, though, is a pleasant blue.

3D Link is a version of three-dimensional noughts and crosses. The graphics are a great improvement on *Subs,* giving you four clear slabs of boards. You can play the computer, play another humanoid or let the computer play itself. Unless you are as coldly logical as Mr Spock you might well prefer the last option.

GAME: SPACE STATION ZEBRA
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: BEYOND
PRICE: £5.95

Space Station Zebra lies at the furthest outpost of the galaxy. Long may it stay there. A tiresome and tedious shoot-'em-up game with great graphics but not much else to offer. **SC**

GRAPHICS	8
SOUND	6
EASE OF USE	3
ORIGINALITY	3
LASTING INTEREST	2
OVERALL	3

GAME: ROBOT RIOT
MACHINE: SPECTRUM 48K
JOYSTICK: KEMPSTON OPTIONAL
CATEGORY: ARCADE
SUPPLIER: SILVERSOFT
PRICE: £5.95

Pac-Man variant in which you lay down bombs in a maze while being chased by robots. Perfectly good fun – unless you already have one of the other 2 million *Pac-Mans* for the Spectrum. **CA**

GRAPHICS	4
SOUND	2
EASE OF USE	5
ORIGINALITY	3
LASTING INTEREST	5
OVERALL	5

GAME: PARADROIDS
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: MIKRO-GEN
PRICE: £6.95

A different kind of shoot-'em-up – but not very interesting. You move up and down the centre of the screen, firing left and right to protect your nuclear reactor from parachuting aliens. **CA**

GRAPHICS	4
SOUND	3
EASE OF USE	5
ORIGINALITY	6
LASTING INTEREST	2
OVERALL	3

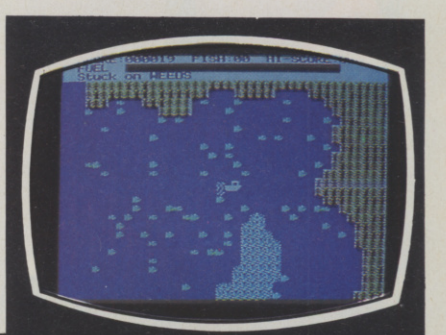
RIC • SPECTRUM • ORIC

fish before being awarded a poisoned one.

The graphics in this game are not fantastic, but then what Oric game does amaze you graphically? The monsters are long squiggly lines and the different areas of water, land and weed are clearly distinguishable.

The sound, though, is quite good. The opening tune is that old favourite about racing someone to the 'bonny, bonny banks of' – curiously – 'Loch Lomond'. The boat makes a good chugging noise and a clever blocked sound when stuck in the weeds. **PC**

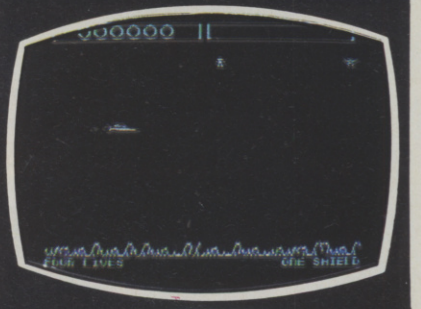
GRAPHICS	6
SOUND	7
EASE OF USE	7
ORIGINALITY	7
LASTING INTEREST	6
OVERALL	7



your humanoids. Pods, as any *Defender* veteran knows, are particularly troublesome; they keep exploding into swarms of Strakers which attack you in a worryingly erratic way. Others have their own little surprises in store.

Your ship is very manoeuvrable and firing is rapid enough to give at least a chance of survival. *Defence Force*'s graphics are impressive for an Oric game and the sound is truly deafening; if it's too much for you there is a silent-game option. **PC**

GRAPHICS	7
SOUND	7
EASE OF USE	7
ORIGINALITY	8
LASTING INTEREST	0
OVERALL	7

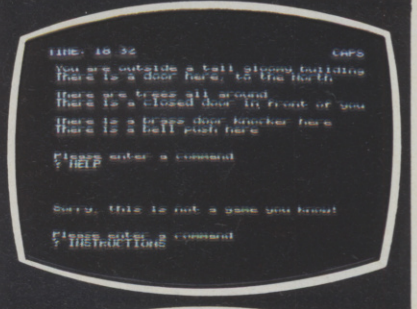


overreaches itself, answering 'PUT ON MASK' with 'OK YOU'VE DROPPED THE MASK' rather than admitting that it doesn't understand you.

Later it told me that it assumed I would be wearing whatever I possessed, which meant I was wandering around wearing a mattress.

House of Death is a tough nut to crack, and novices are advised to steer clear. **SC**

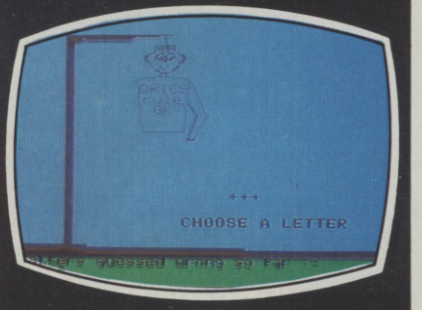
GRAPHICS	TEXT ONLY
SOUND	2
EASE OF USE	5
ORIGINALITY	5
LASTING INTEREST	6
OVERALL	5



Third on the menu is... *Hangman!* You play the computer which draws out the figure as you get letters wrong. The graphics are again very poor. The first word you are faced with has three letters.

The remaining games on this dull compendium are *Road Race* and *Moonlander.* **PC**

GRAPHICS	2
SOUND	2
EASE OF USE	6
ORIGINALITY	2
LASTING INTEREST	2
OVERALL	2



GAME: VOLCANIC PLANET
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: EMI
PRICE:

Ever seen a robot get the jitters? *Volcanic Planet* is android-infested and boy, do they get panicky when you blast them into little bits and send them to that Great Workshop in the sky.

You control a good-guy android as he explores a multi-level maze, moving between levesl via lifts that you locate using a small-scale diagram in the top right-hand corner of the screen.

The main display shows your location and features scrolling graphics as you move about blasting enemy androids and hunting for such useful things as oxygen supplies and armour repair packs.

There are five levels of play, and the higher the level the more layers there are to be penetrated.

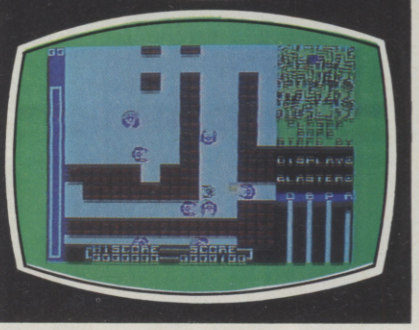
Once you've reached the bottom of the maze you have to find a 'volcanic plug' and deposit a plasma-bomb beside it. Then it's a race against time to find the lifts and escape before the bomb explodes and floods the maze with molten lava.

The program has no sound, and uses the number keys '3' to '0' which makes things a bit cramped if you don't have a joystick.

The only reward for success is the message 'Mission Completed' that flashes across the screen at the end. The action is fast and smooth however and should afford a few hours amusement.

The program doesn't have a recommended retail price so it may be worth shopping around for the best offer. **SC**

GRAPHICS	8
SOUND	NONE
EASE OF USE	6
ORIGINALITY	6
LASTING INTEREST	7
OVERALL	7



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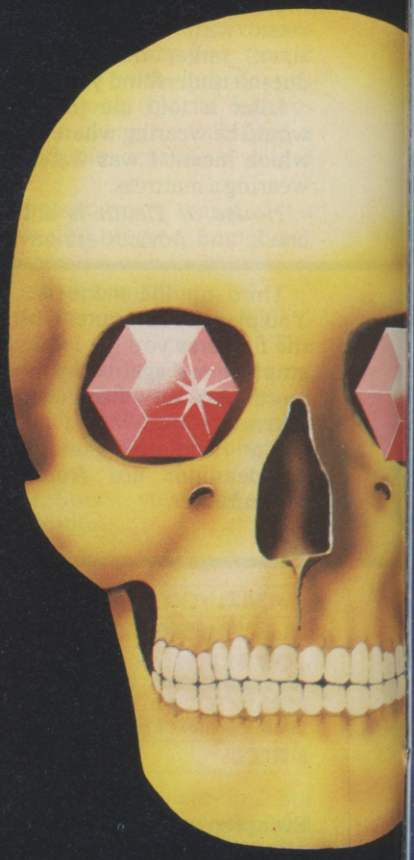

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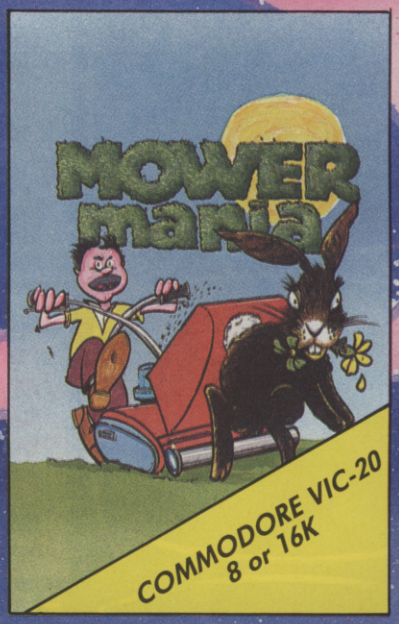

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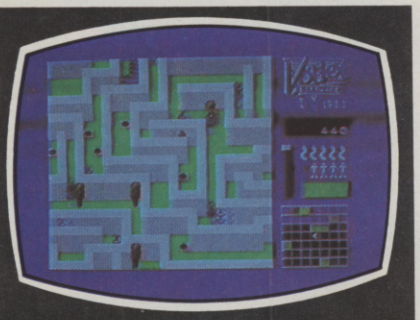
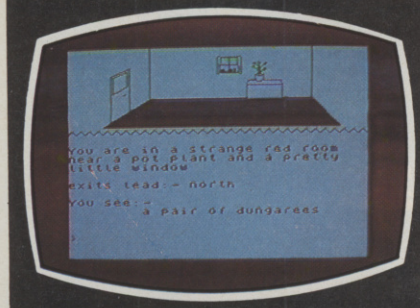


GAME: ANDROID TWO
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: VORTEX
PRICE: £5.95

Android One was a competent but uninspired variant of *Berzerk*. *Android Two* is something quite different.

You control an android as he steps out of his transporter capsule into a three-dimensional maze of vast proportions. Only a part of the maze is visible at any one time and if you move to the edge of the screen the display scrolls appropriately, bringing a new sector into view.

There is a very comprehensive status display, featuring score, hi-score, time elapsed, targets destroyed, lives remaining, and an attractive but (in practice)



GAME: URBAN UPSTART
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ADVENTURE
SUPPLIER: RICHARD SHEPHERD SOFTWARE
PRICE: £6.50

Urban Upstart is the latest creation of programmer Peter Cooke, who was responsible for some of the earlier Richard Shepherd offerings.

Like *Invincible Island, Urban Upstart* features split-screen graphics, over 70 locations, and some very dry humour. It's not an easy adventure to solve and is good for a few evenings' light entertainment.

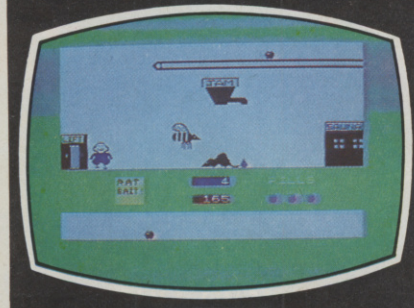
At the start of the game you find yourself in a small house in Scarthorpe,

GAME: LASER SNAKER
MACHINE: SPECTRUM 48K
JOYSTICK: KEMPSTON
CATEGORY: ARCADE
SUPPLIER: POPPYSOFT
PRICE: £5.95

You're the snake in *Laser Snaker* and your mission is to penetrate egg plantations. The eggs are multicoloured and spread randomly about a succession of screens, here called sheets.

You start as just the snake's head and by swallowing eggs you grow a section at a time.

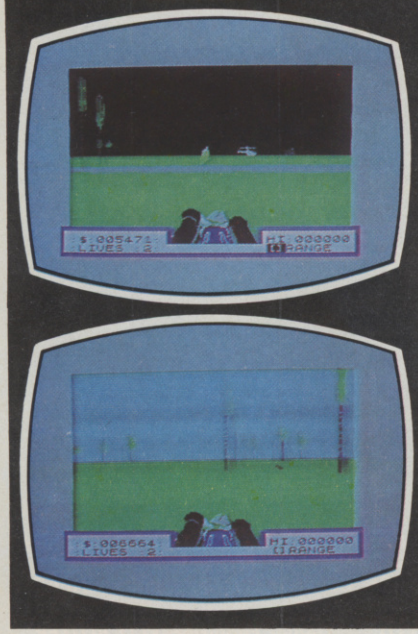
In the long run, it's better to zap the eggs with your laser than eat them, because it's always possible to bump ito your own tail when it gets long enough, resulting in the loss of one of three lives.



GAME: APPLE JAM
MACHINE: SPECTRUM 16/48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: DK'TRONICS
PRICE: £5.95

This one is guaranteed to make you sick. Apples are falling off the end of a conveyor belt and jam is dripping from the nozzle of a machine. It's your disgusting duty to stand under each piece of apparatus in turn so that as much food as possible falls into your mouth.

With each gulp you grow visibly fatter until – the sick part – you have a fit. This costs you a pill, and since you have only three you need to keep slimming down by running into a sauna.



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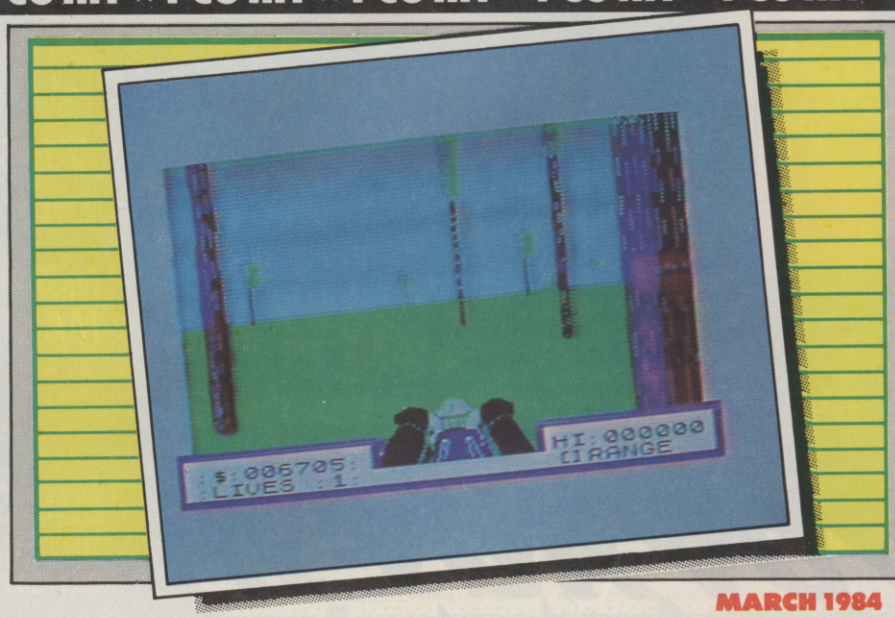

SPECTRUM • SPECTRUM

unnecessary radar screen.

Using the 1,Q,O and P keys you must avoid landmines, Bouncers, and Hoverdroids as you scour the maze for the elusive Millitoids. There are five of these caterpillar-like beasts, and each may be destroyed by three well-aimed blasts from your laser.

This weapon is of limited range but can be conveniently fired using any of the bottom row keys.

You have five lives and lose one of these every time you bump into something nasty, which in this games means almost everything.

If you succeed in finding and destroying all five Millitoids in the allotted time you may then be transported to the next zone – always provided that you manage to find you way back to the transporter capsule. There are three zones, each with a different scenario.

Android Two is excellently documented with no less than five screens of instructions, which you can skip if you want to. The 3D effects and graphics are also very well produced. **SC**

GRAPHICS	9
SOUND	5
EASE OF USE	8
ORIGINALITY	7
LASTING INTEREST	8
OVERALL	8

---

the sort of town where the inhabitants dream of taking their summer holidays in Sutton Coldfield.

During the entire game you encounter only five people, none of whom are very friendly. Success depends on perseverance and a magpie's talent for collecting everything in sight.

There is a graphic representation of every location, although a number of the screens are identical, and the program responds to multi-statement commands provided they are joined together with 'and'.

Scarthorpe is indeed a depressing place to look at and the idea of escaping gets more and more attractive the further you go. After a few bouts in jail and some fruitless attempts to order fish and chips I found myself contemplating suicide on Grime Street. However, this is one of those rare aventure games where even death offers no release – you just end up in hospital. **SC**

GRAPHICS	7
SOUND	6
EASE OF USE	5
ORIGINALITY	6
LASTING INTEREST	6
OVERALL	8

The same goes for bumping into anything else – the walls, blocks which throb on and off called chrystoids, and creatures called Aggranoids and Viproids.

Aggronoids look like green balls of fluff with eyes, and bounce around mischievously evading your fire. A Viproid is a blue snake which, like you, eats eggs and twists and turns.

The object is to graduate to sheet 15, where a secret symbol is to be revealed. This involves clearing the eggs completely off some sheets, and reaching things called power stones embedded in mazes on other screens.

This is no mean feat, even at the lowest of 10 speed levels and five difficulty levels. Because they know it's hard, Poppysoft are offering a cash prize to whoever cracks it before April.

I foresee much agonizing wrist-strain with this one as people wrestle with their Kempstons far into the night. **WD**

GRAPHICS	8
SOUND	5
EASE OF USE	4
ORIGINALITY	6
LASTING INTEREST	7
OVERALL	7

But, oh dear, this means that the sticky yuk you should be scoffing is falling to the ground and being slurped by little rats. Which get bigger the more they consume. And when they're very big they run on to your level to attack you.

Your only escape is to tear into a lift which shoots up and down automatically. If you time it right, you come down on top of a rat and crush it (causing a red stain which gets a bit bigger each time – revolting touch!).

One final hazard is a nasty-looking hornet with a fatal sting.

Apple Jam is clever in that the game's considerable variety is achieved with the use of just two keys: left and right.

This means you can enjoy playing it immediately – but it should still offer prolonged entertainment. **CA**

GRAPHICS	8
SOUND	3
EASE OF USE	10
ORIGINALITY	10
LASTING INTEREST	7
OVERALL	8

PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PC

GAME: DEATHCHASE
MACHINE: SPECTRUM 16/48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: MICROMEGA
PRICE: £6.95

For those of you who prefer life in the fast lane, 3D *Deathchase* from Micromega is an essential purchase.

The game is fast, simple, and addictive. The year is 2501, and you find yourself riding a powerful motorcycle through the forests of North America.

Steering left with the 1 key and right with the 0 key your task is to open the throttle, hunt down enemy riders at high speed and destroy them with your guided photon bolts.

Sounds exciting? It is, and it all takes place against some of the best three-dimensional graphics I've yet seen on the Spectrum.

There are eight sectors to be patrolled both by day and night. The trees loom up on the horizon and fly past as you roar in pursuit of the opposition, blasting away with any of the bottom row keys. The key layout is well thought out and enables you to concentrate on the game instead of your fingers.

As you progress through the different sectors the trees grow more numerous. Dodging them isn't easy and you only have three lives. You lose a life after each collision.

Deathchase is a 100% action game, and this is perhaps my only criticism. There are no tactics involved and only two speed controls: accelerate or brake.

You can only fire when going as fast as possible. In any other game this lack of variety would soon see the cassette gathering dust in a dark corner, but the impressive realism of the display is enough to tempt you back for another go. Put it this way, every time I hit a tree it brought tears to my eyes. **SC**

GRAPHICS	9
SOUND	4
EASE OF USE	8
ORIGINALITY	8
LASTING INTEREST	7
OVERALL	8

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GAME: SCUBA DIVE
MACHINE: SPECTRUM 48K
JOYSTICK: SINCLAIR OPTIONAL
CATEGORY: ARCADE
SUPPLIER: DURELL
PRICE: £5.50

The time has come, game player, to stop your compulsive jabbing of fire buttons, slip out of your over-used space capsule and carefully, *very carefully* enter this fabulous underwater world.

Imagine a vast ocean bed hiding measureless wealth; dark waters inhabited by sharks, squid, barracuda, electric eels, giant clams, killer jellyfish and hungry shoals of fish; a guarded passage which leads to undersea caverns of frightening complexity. Begin your *Scuba Dive*. But be on your guard.

Believe it or not, this program will take you on an adventure in which you will not shoot anything, nor experience any particularly fast action. Yet you will be totally absorbed. And even if your first attempts result in early death (they will), you won't hesitate to re-enter the water.

Let's start at the beginning. On screen is a boat floating in shallow waters. At the touch of a key, the diver goes over the side. Making him swim is simple. Two keys to accelerate and slow down; two more to rotate him so that he heads in the right direction.

Kicking his legs gently, the diver moves towards the sea-bed. As he nears the bottom of the screen, the picture changes to reveal what's below. For at any one moment only a small fragment of the underwater terrain can be depicted on screen.

The diver is looking for treasure. And scattered on the sea-bed are oysters which open and shut. If he can touch them when they're open he can pick up the pearls they conceal.

But it's a delicate operation. If he's not careful he will crash into the rock, knock himself unconscious and drop all the treasure he's collected.

To be safe, the treasure must be returned to the boat. But when the diver returns to the surface he finds the boat has drifted and is nowhere to be seen. He may have a long swim to find it – and his oxygen level is falling all the time.

There are far greater hazards ahead, for the waters are teeming with life, and meeting any of it is fatal.

From the safe position of an armchair, the creatures are wonderful to behold. There are more than 10 different types and they're incredibly life-like. They swim smoothly across the screen, and then suddenly turn round in beautiful 3D effect.

The sharks and squid in particular are frighteningly real.

Once the diver has found all the oyster pearls he has a more dangerous mission to complete. In one location on the ocean bed is an octopus guarding the entrance to a deeper cavern. As the octopus moves his tentacles up and down, it's possible to slip past him. The cavern contains more creatures, including giant clams which hide even greater treasure.

But the game's real challenge lies in the final mission which involves going past a second octopus into the really deep waters. Here there are numerous narrow passages through the rock and they're different every time you play.

If you can find the right ones and swim through them safely, you will come across three treasure chests.

Each of these contains more than you can carry, so to empty them you will have to make several trips, going right back up to the boat each time.

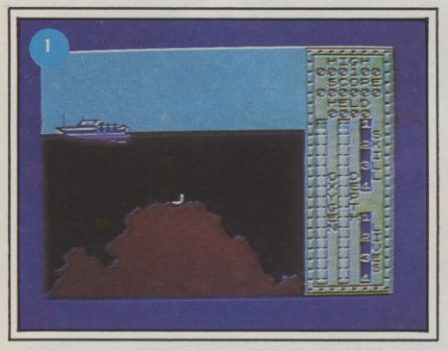
You'll also need to keep renewing your oxygen supply from cannisters you may (or may not) find hidden in the passages. Fact is, it'll be a miracle if you get back alive.

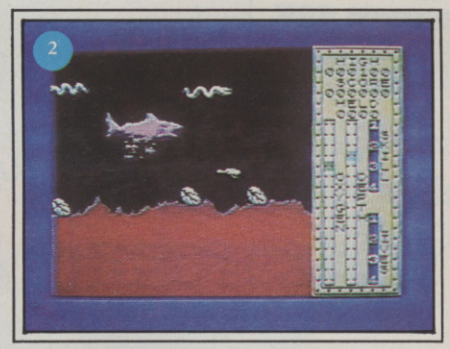
Many computer games demand little more than fast reactions and finger co-ordination. You get a short burst of high-adrenaline action – and then you're dead.

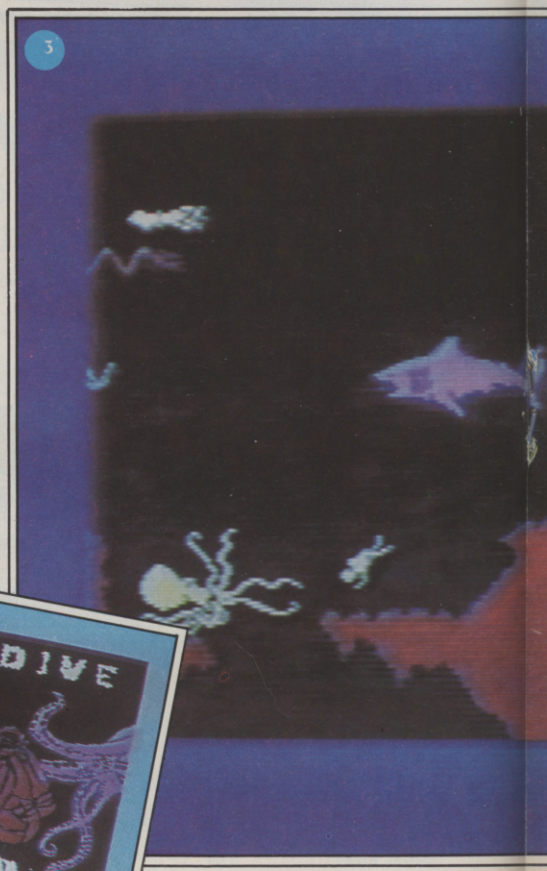
Scuba Dive is different. Instead of having 101 things hurtling at you which you must shoot or avoid, you have a much longer and ultimately more challenging quest.

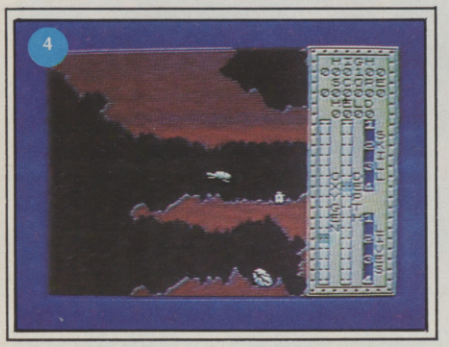
Rather than scoring every time you do something successfully, you only get points when treasure is returned to the boat. This greatly adds to the game's compulsiveness – and frustration!

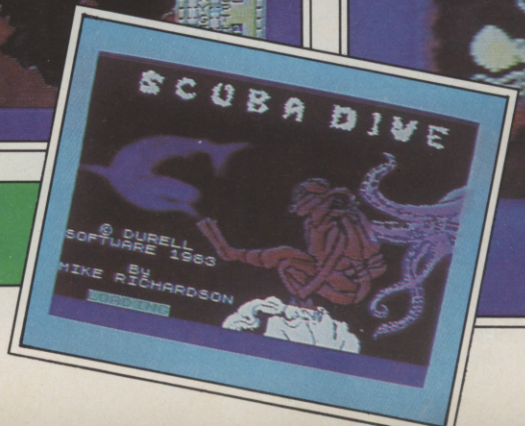
It means you can adopt one of several











Your undersea quest starts in the boat (1). Dive down to the sea bed in search of clams (2), then squeeze past the octopus (3) to reach the deep passages. You might discover oxygen tanks (4) or even a treasure chest (5).

The BBC Micro can now give your children a private education.

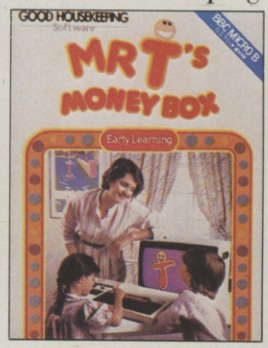
The BBC Microcomputer now accounts for 80% of the computers being ordered under the current D.O.I. Primary School Scheme.

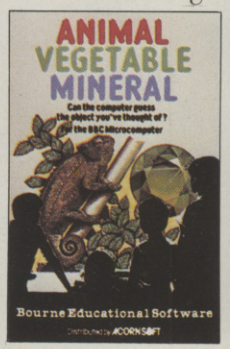
It's also the computer which a rapidly increasing number of people are choosing for their homes.

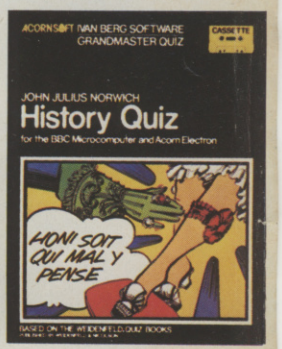
One of the reasons for its success is that it makes learning highly entertaining for everybody. From children who are getting to grips with the alphabet, to adults who want a gentle but intensive introduction to the complex world of computing.

Now, there's a substantial new catalogue of educational programs specially for the BBC Microcomputer.

It has been developed by Acornsoft, the software division of Acorn Computers who manufacture the BBC Micro.







Making faces without getting scolded.

With the new Facemaker program, your children can make over a million faces. It's like an identi-kit, allowing them to depict anyone they want. They start by choosing the eyes. Then they can choose the mouth, the ears, the nose, the facial outline and the hairstyle.

And if they really fancy dressing up, they can add earrings and hats.

In doing all this, they learn to read and spell, as well as developing their powers of description.

The money program, two games for the price of one.

Mr. T. is an engaging little figment of the microchip who can teach your children all the complexities of our coinage system.

His Money Box program has two games, each of which can be played at different levels.

In Money Match, the challenge is to collect a set of coins, matching them according to shape, size and value.

In Money Box, you can give your child and Mr. T. a helping hand to get all the coins on the screen into the box. (It's always different, because the coins on the screen are based on the small change you have to hand.)

A chance to teach the Micro a thing or two.

With the Animal, Vegetable, Mineral program, the children can get the computer guessing.

They think of an object. The BBC Micro has to decide what it is.

If it doesn't come up with the answer, the children can keep giving it hints.

In doing so, they are encouraged to question the difference between such things as crocodiles and alligators, or whether oil is vegetable or mineral.

The program also encourages them to consult reference books so that they can ask the computer increasingly tough questions.

Questions on Julius Caesar from J. Julius Norwich.

John Julius Norwich's History Quiz is one of the new BBC Micro Grandmaster quiz series which also covers theatre, crime and detection, music, science fiction and royalty.

On the history front, there are 300 brain-testing questions, covering all aspects of British history from Julius Caesar to Margaret Thatcher.

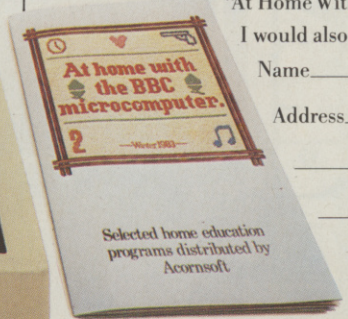
And to increase the educational value, Mr. Norwich has posed the questions from angles which will give a broader understanding of events.

For the full catalogue, clip the coupon.

There are thirty more new BBC Micro programs in Acornsoft's new catalogue.

For a free copy, complete the coupon, or telephone 0933-79300. Or ask your local BBC Micro dealer.

If you're not yet a BBC Micro owner, you can get full details of the computer at the same time.



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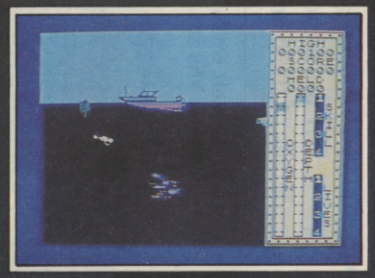
PG3

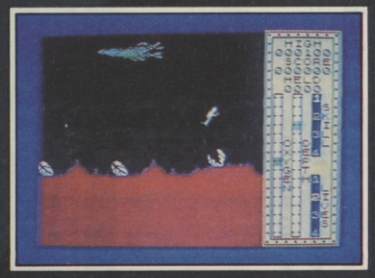
ACORNSOFT

SCUBA DIVE

BY

MIKE RICHARDSON





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different strategies, for example returning to the surface regularly, or collecting as much treasure as you can carry (with the risk of losing it all).

The program avoids a fault of many games which make you go through the same early stages every time you play. In *Scuba Dive* you can head straight for the deep passages if you so wish, and save the easier points for later.

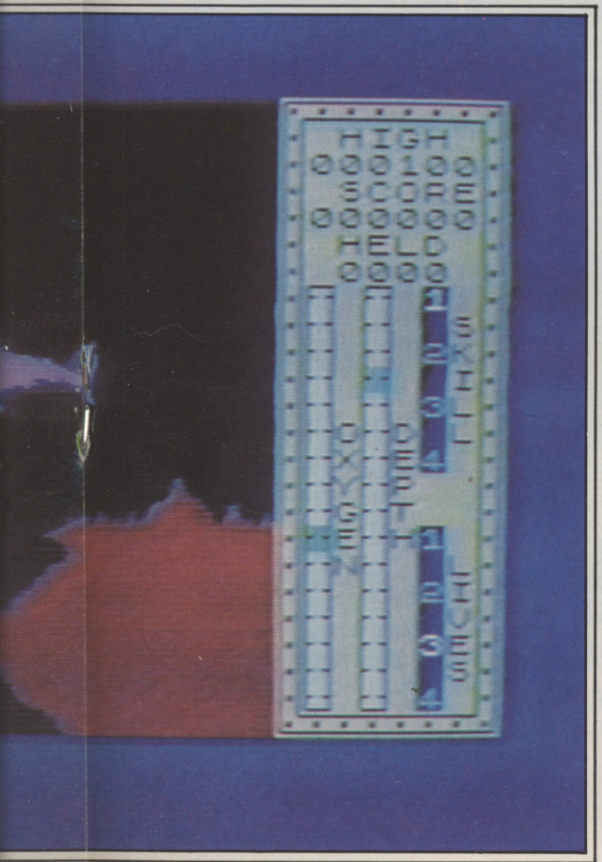
Other nice features are four different skill levels, user-definable keys and the ability to save the high score table on tape, making the game suitable for ongoing club competitions.

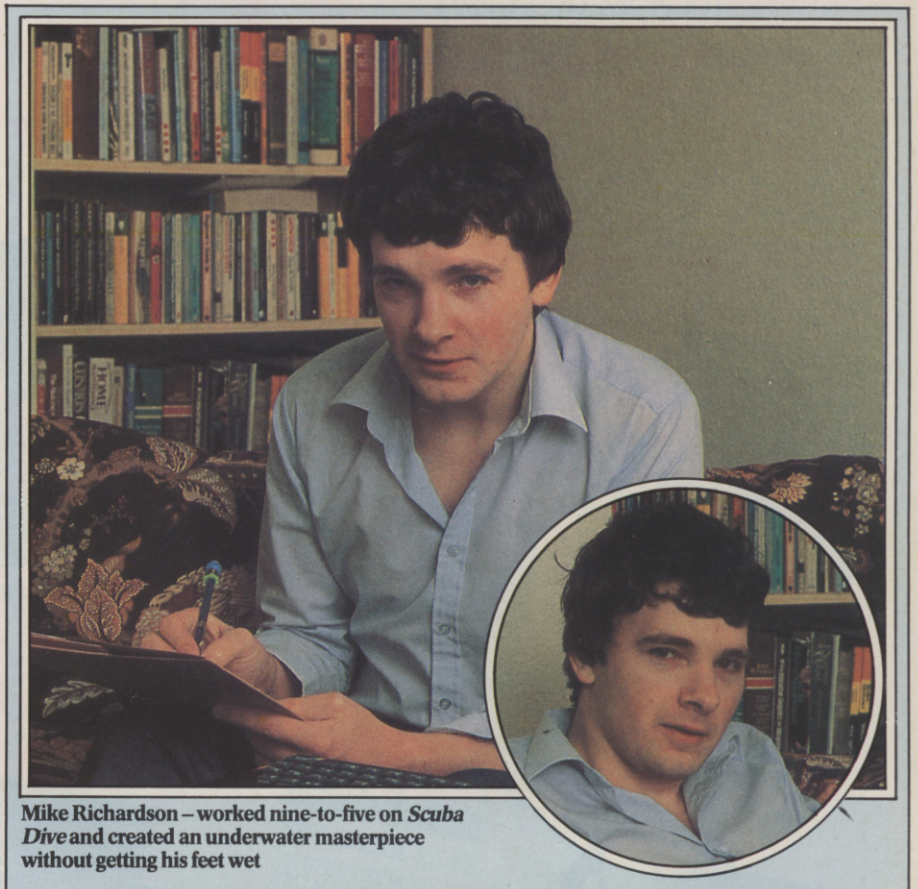
What's more, the cassette includes an instruction leaflet offering fuller directions than usual.

Scuba Dive isn't perfect. As in many Spectrum games the sound is limited. And it would have been nicer to have the screen scrolling smoothly when changing locations instead of simply cutting to the new position.

Despite these quibbles, the game is incredibly addictive. So if you fancy settling back for a long nail-biting adventure, you'll find *Scuba Dive* is very, very special. **CA**

GRAPHICS	10
SOUND	3
EASE OF USE	8
ORIGINALITY	9
LASTING INTEREST	10
OVERALL	9





Mike Richardson – worked nine-to-five on *Scuba Dive* and created an underwater masterpiece without getting his feet wet

A GENIUS ON THE QUIET

You'd think that the writer of a swashbuckling undersea adventure like *Scuba Dive* would himself be a bit clever with a pair of flippers. Not Mike Richardson.

'I can't swim,' he admitted. 'In fact I don't like water.' So those brilliant moving pictures of the ocean creatures weren't based on first hand experience? 'No. I copied them from a book.'

Swimmer or not, there's no doubt that Mike Richardson can program. The managing director of Durell Software Robert White describes him as 'a genius on the quiet'.

'He just sits there very quietly in the office. He only programs, nothing else. He won't say anything, he won't have any coffee or eat or anything. About three o'clock you can give him a little water by intravenous drip.'

Maybe it's because he doesn't like sitting at desks. 'When I'm at home, I just slouch in a chair and write on scraps of paper,' said Mike. 'I don't do anything else. This is my hobby.'

Whatever the technique, it seems to work. *Scuba Dive* contains some extremely sophisticated routines – the huge underwater passages, for example, are generated differently each time the game is played. When running it uses the entire 48K available.

The program took three months to write. 'I was working on it at the office from nine to five each day. I wanted to get the program as realistic as possible.

'The work's very absorbing. But I don't like doing the actual coding.'

Certainly Mike doesn't fit easily into the role of computer whizz-kid. For a start, he's 26 and a former chemist. He doesn't drive around in a sparkling Mercedes. In fact, until a few weeks ago, he was the proud owner of a 3-wheeler Robin Reliant with a door hanging off – but that's now been replaced by a Ford Fiesta.

He's been working for Taunton-based Durell for the past six months, and is the writer of both their previous main successes – *Harrier Attack* and *Jungle Trouble*.

In fact the company itself has seen remarkable growth. Sales of cassettes have risen from 800 last July to 20,000 in December.

At that rate it won't be long before that Fiesta gets upgraded.

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GAME: JUMBLY
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: PUZZLE
SUPPLIER: DK'TRONICS
PRICE: £6.95

Remember those flat plastic puzzles in which you had to slide squares around until they were in the right order? Now you can do the same thing on a computer.

Jumbly is a very nice version of the puzzle with the added twist that some of the 10 pictures you have to unscramble are continually scrolling. This means that in their jumbled-up state it's extremely difficult to work out which piece goes where.

Another addition is that you have a target number of moves to solve the puzzle in (initially 150). If you make the target you're supplied with a code which allows you to move on to the next picture.

If you don't make it, you gnash your teeth and try again. I fear that quite a few buyers of *Jumbly* will do a good deal of teeth-gnashing. For if you hold down a key a fraction of a second too long, you will end up sliding two squares instead of one. You only have to do this a few times to blow any chance of reaching your target.

GAME: RIVER RESCUE
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: THORN EMI
PRICE: £6.95

Break out the binoculars, lads, and turn the boat upstream – there's people to rescue!

The river scrolls from right to left and contains logs and crocodiles, which can sink any of your five boats, as can the treacherous riverbanks. You can shoot the crocs or you can avoid them by moving up or down. The riverbanks are fairly straight but do occasionally and unrealistically jut out into the water.

Red wharfs pop up either side and turning into the north one, means a passenger is picked up. They always appear on the north, and will only disembark on the south, leaving you wondering why someone didn't just build a bridge.

Points are gained for distance of river covered, crocodiles shot and people rescued. Rescue nine passengers and you're awarded an extra boat. If you get far enough, you'll also find biplanes dropping mines into the water.

GAME: MAGIC MEANIES
MACHINE: SPECTRUM 16K
JOYSTICK: KEMPSTON
CATEGORY: ARCADE
SUPPLIER: CDS MICRO SYSTEMS
PRICE: £5.95

The wizard on the cover of *Magic Meanies* looks as if he belongs to an adventure game. In fact, he's yet another graduate of the *Pac-Man Horace* academy, in yet another variation of the maze game.

As Meltec the Wizard you're on a screen liberally sprinkled with lead, which you must collect, and Meanies, which you must avoid. A do-it-yourself maze emerges as your passage cuts a path through the brilliant green screen, and along such paths the Meanies wander.

The object is to collect all the lead and a roaming bunch of cherries. Apples are embedded in the screen, and will fall vertically down any paths cut. By passing beneath an apple with a Meanie on your tail, you can block his path as the apple drops down.

Another way of dealing with Meanies is to zap them with crystal balls, which are floated lugubriously, rather than

GAME: I'M IN SHOCK
MACHINE: SPECTRUM 16/48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: ARTIC
PRICE: £4.95

Your suspicions about this program are first aroused when you discover that it loads in well under a minute. They're confirmed when you start playing. It's junk.

According to the drivel on the cassette inlay you're supposed to be a battleflier shooting up alien ships in a battlefield constructed by the enemy.

What actually appears on screen is a grid speckled with a few coloured blobs, one of which is you, the rest the enemy.

You can move right or left (not up as the instructions tell you) and fire. The game's only hint of novelty is that the 'rays' from your gun bounce off shields placed at angles on the grid.

This means you can destroy aliens which aren't directly above you – while they can't destroy you because their shots don't bounce. Strange way to build a defensive battlefield.

PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HI ★

GAME: FIGHTER PILOT
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: DIGITAL INTEGRATION
PRICE: £7.95

You can't beat an F15 Eagle jet fighter for sheer power and speed, and now you don't need to join the US Air Force to know why. All you need is a Spectrum and *Fighter Pilot*.

Flight simulation programs put you right in the pilot's seat. They confront you with a screen split horizontally between instrumentation and your view from the cockpit.

Instrumentation involves things like velocity, altitude, fuel etc, and *Fighter Pilot's* is thorough. You'll need to spend quite a while wading through the instructions, but once in control it's great fun.

Thus far, the program offers nothing unique, although with a joystick the flying is the best I've come across. *Fighter Pilot* offers the extra options of combat practice or combat itself. Since it's only a program, you may as well go for the actual combat. Instruments lock into the range, bearing and altitude of an enemy plane that's out to bomb four airfields, all on your map display.

From scrambling at take-off to getting the enemy in your sights is hard enough, but shooting him from the sky takes skill. The dogfight is realistic, thrilling and calls for a cool hand.

Inevitably, comparisons with Psion's *Flight Simulator* program will be made. *Fighter Pilot* has the edge over this civilian game straightaway for its spectacular combat, but it wins too on graphics and instrumentation. **WD**

GRAPHICS	8
SOUND	NONE
EASE OF USE	9
ORIGINALITY	8
LASTING INTEREST	9
OVERALL	10

SPECTRUM • SPECTRUM

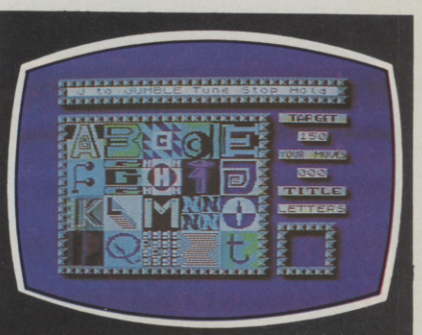
Fortunately you do have the option of peeking at the unscrambled picture you're aiming for. And of stopping the scrolling – although this stops you getting the code when you solve the puzzle.

Anyone who does manage to get through all 10 puzzles will win the right to design a picture for *Jumbly II*.

But although *Jumbly* is novel, colourful and slick, at heart it remains a simple puzzle which is made frustrating in a rather artificial way. A bit like asking someone to count to 10 while holding his head submerged in a bucket of glue.

CA

GRAPHICS	9
SOUND	5
EASE OF USE	4
ORIGINALITY	9
LASTING INTEREST	6
OVERALL	7



River Rescue was previously available for the Vic, Atari and TI99, but with dolphins rather than crocodiles. Shooting dolphins has evidently been seen as unethical.

It's a shame there's only one speed of play, if you want to go faster, all that happens is the boat moves to the right of the screen, giving less warning of what's coming. As for sound effects, the boat engine sounds authentic, but the loss of a boat renders an irritating raspberry.

WD

GRAPHICS	4
SOUND	4
EASE OF USE	7
ORIGINALITY	6
LASTING INTEREST	6
OVERALL	5

fired, in the direction of motion.

The game has nine skill levels, each faster, and a succession of screens, all fairly similar but with successively more Meanies. If you don't have a Kempston joystick, a convenient choice of keyboard keys has been made, and all the action happens to the accompaniment of the can-can dance music.

Clearly, this engaging music is entirely irrelevant to the concept of the game, as is the mumbo jumbo about wizards, but it's not a bad brew that results.

WD

GRAPHICS	5
SOUND	6
EASE OF USE	8
ORIGINALITY	8
LASTING INTEREST	7
OVERALL	7

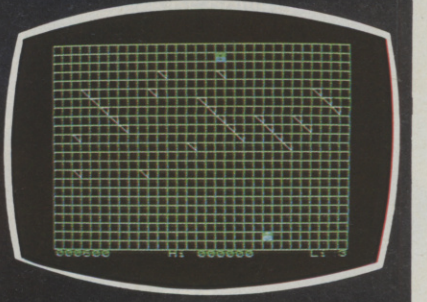
The game is pathetically easy to master and is unlikely to sustain interest for more than a few minutes.

Although the motion is smooth, all the moving objects are the size of single characters, and there's no attempt at animation.

The game's title, incidentally, bears no relation to what happens – it must be a reference to the reaction of people who actually buy this rubbish.

CA

GRAPHICS	2
SOUND	2
EASE OF USE	6
ORIGINALITY	3
LASTING INTEREST	0
OVERALL	1



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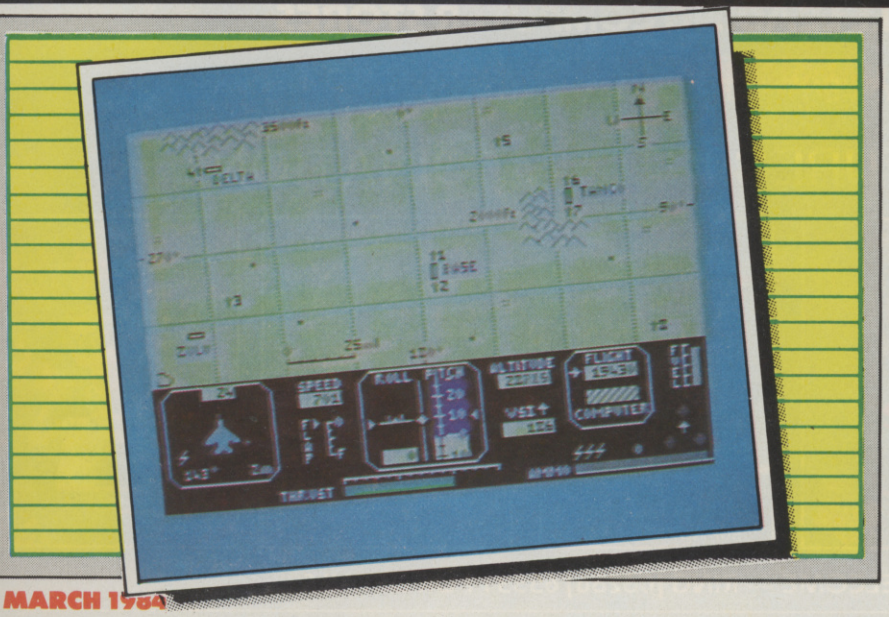

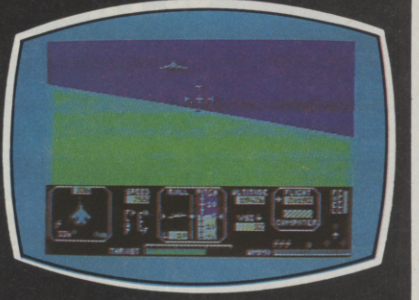

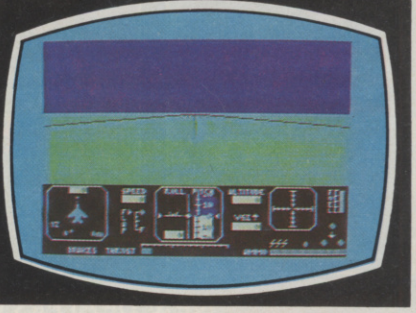

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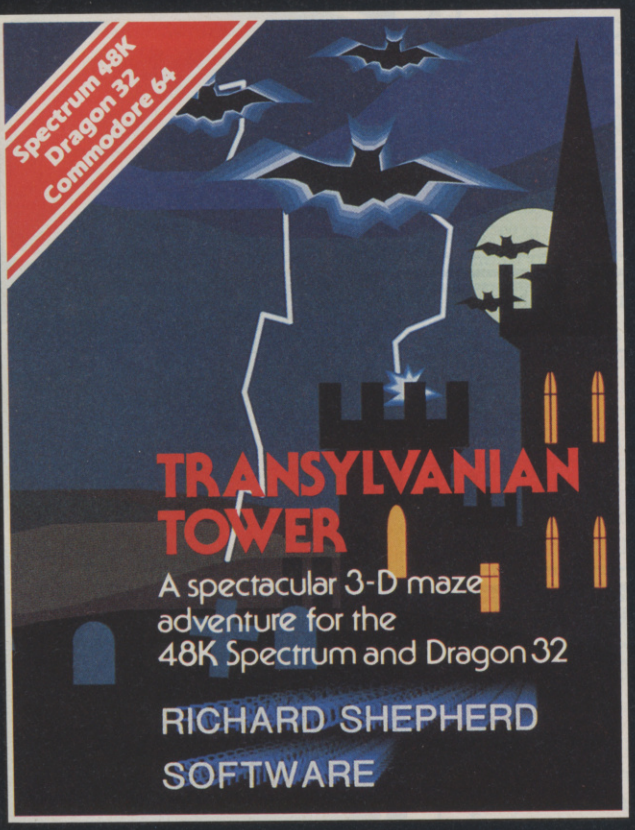

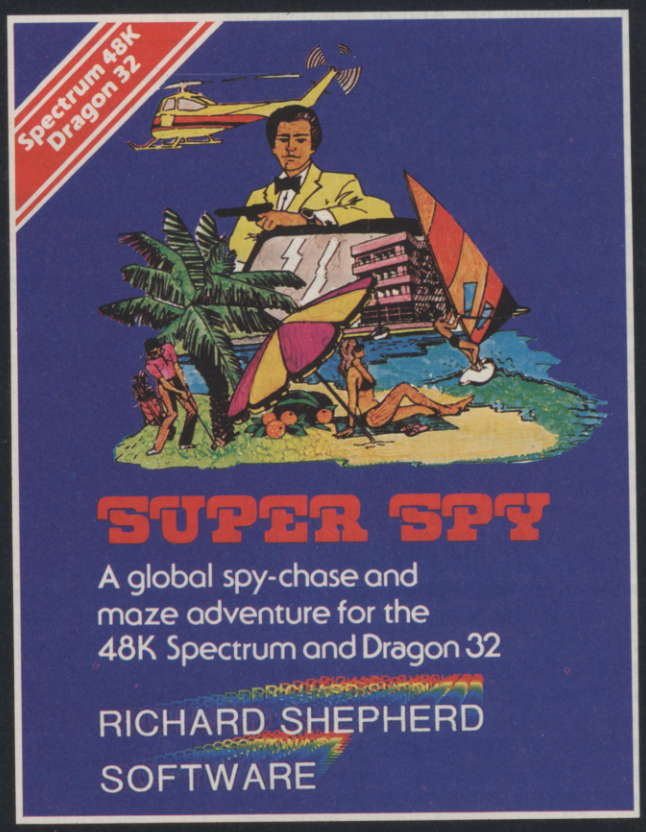

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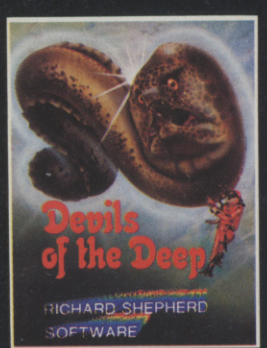

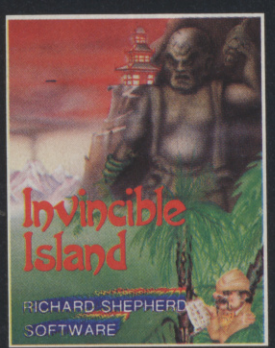

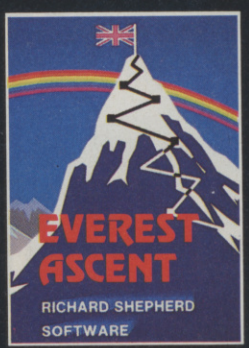

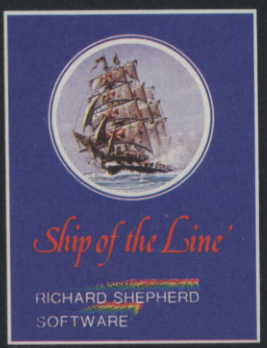

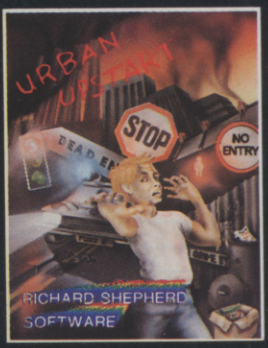

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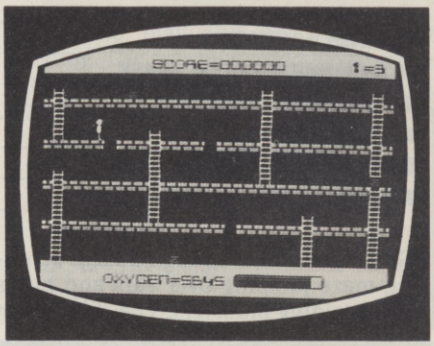
SPECTRUM • SPECTRUM

GAME: SHEER PANIC
MACHINE: SPECTRUM 16/48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: VISIONS
PRICE: £5.95



GRAPHICS	5
SOUND	4
EASE OF USE	3
ORIGINALITY	2
LASTING INTEREST	5
OVERALL	4

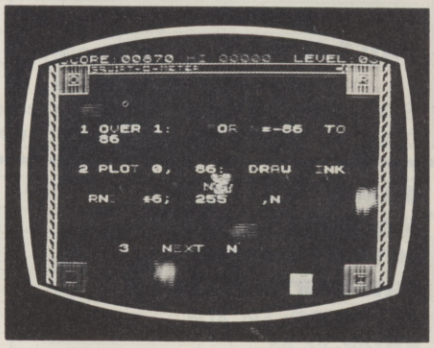
Space Panic is an old favourite in the arcades, but there are many more adventurous games now available for the Spectrum. However, if you are dead set on adding a version of this game to your collection then Vision's *Sheer Panic* is fine.

For those of you unfamiliar with the game, you control a figure armed with a shovel, whose task is to climb ladders and dig holes for careless monsters to fall into. You then rush up and bury them before they have a chance to clamber out.

Vision's monsters are intelligent, the action fast and smooth, and high scores are difficult to get.

Sheer Panic holds no surprises. The graphics are acceptable, and the sound is what we have come to expect from the Spectrum, which isn't much. **SC**

GAME: MICRO-MOUSE GOES DE-BUGGING
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: LOTHLORIEN
PRICE: £5.95



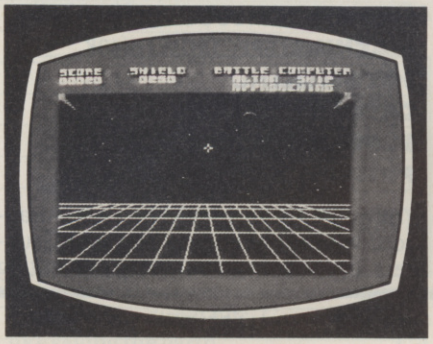
GRAPHICS	5
SOUND	4
EASE OF USE	5
ORIGINALITY	9
LASTING INTEREST	4
OVERALL	5

A computer game on a computer theme. On screen is a Basic program with some of its letters and numbers missing. They've been stolen by little bugs who hid them in boxes at the corners of the screen.

You control a mouse whose job is to put them back into position. This is easier than it sounds because the screen shows you where each missing character should be, and even tells you which box to collect it from. The problem is purely to replace the letters faster than the bugs can steal them.

This is easy at first, but gets progressively harder. You may have to resort to destroying the bugs with a spray you can squirt at them – although it's hard to see what this achieves since they're immediately replaced. **CA**

GAME: 3D DEFENDA
MACHINE: SPECTRUM 48K
JOYSTICK: AGF OPTIONAL
CATEGORY: ARCADE
SUPPLIER: CONTRAST
PRICE: £4.95



GRAPHICS	6
SOUND	3
EASE OF USE	1
ORIGINALITY	2
LASTING INTEREST	2
OVERALL	3

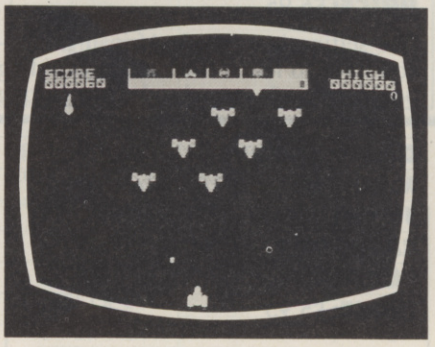
This game has nothing to do with the arcade classic *Defender*. More's the pity. It's a simple shoot-the-aliens affair, the only point of interest being the 3D view of the action.

At first sight it looks quite good. The planet you're flying over scrolls beneath you in the form of a moving grid, and the enemy craft loom larger and larger as they get closer.

But in actual playability the game falls down. As is usual with 3D games, you aim by moving a crosshair sight to the spot you want to hit.

But in this version the sight jerks along sluggishly and there's an annoying delay between pressing the fire button and the actual shot. And your motion is interrupted every time the approaching craft opens fire, which is poor programming. **CA**

GAME: STARCLASH
MACHINE: SPECTRUM 16/48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: MICROMEGA
PRICE: £6.95



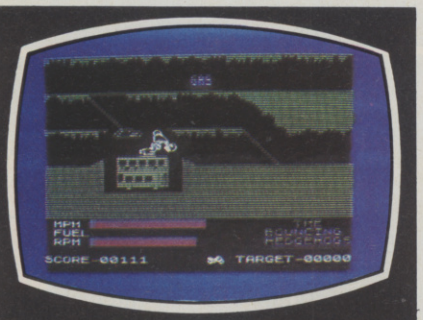
GRAPHICS	4
SOUND	3
EASE OF USE	9
ORIGINALITY	1
LASTING INTEREST	2
OVERALL	2

How's this for an original idea? You control a spaceship and have to shoot your way through waves of alien craft!

Yes, it's yet another space shoot-out and I'm afraid this one has nothing new to offer. There are four different waves of aliens, but their movement is more or less identical.

What's worse is that in each wave, the attackers move in formation – no Galaxian type wheeling and swooping. If one must do battle in space, it should at least be interesting.

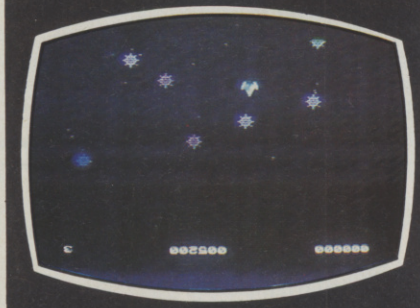
After getting through the aliens you have to take pot luck at shooting down a narrow 'reactor code' to destroy a 'mother ship'. Then you have the 'thrill' of starting all over again. **CA**



GAME: WHEELIE
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: MICROSPHERE
PRICE: £5.95

Guide your bike through a large scrolling maze jumping over cars and buses and avoiding monsters. The skill lies in getting your speed right, and picking the most sensible route. It's fun and it'll keep you interested. **CA**

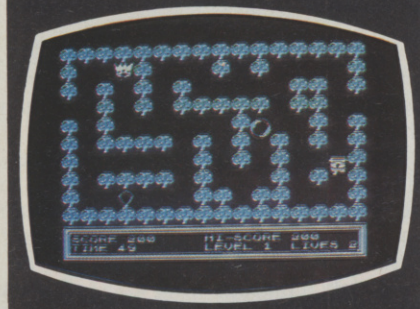
GRAPHICS	6
SOUND	4
EASE OF USE	3
ORIGINALITY	6
LASTING INTEREST	8
OVERALL	7



GAME: STAR WARRIOR
MACHINE: SPECTRUM 16/48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: VISIONS
PRICE: £6.95

Space game with three different pieces of action: straightforward shoot-'em-up, an asteroid storm, and a maze from which you must collect a crystal. **CA**

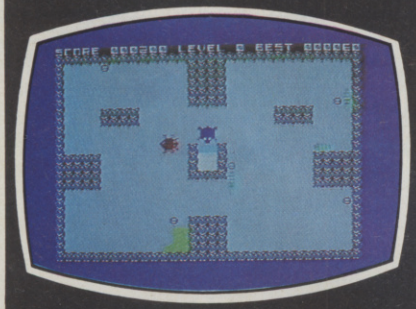
GRAPHICS	5
SOUND	4
EASE OF USE	5
ORIGINALITY	3
LASTING INTEREST	5
OVERALL	4



GAME: BUBBLE TROUBLE
MACHINE: SPECTRUM 48K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ARCADE
PRICE: £5.50

A type of *Pac-Man* in which you collect treasure from a maze and avoid bubbles. Only novelty is that you can press a key to reverse direction of bubbles when cornered. But 50 screens offered. **CA**

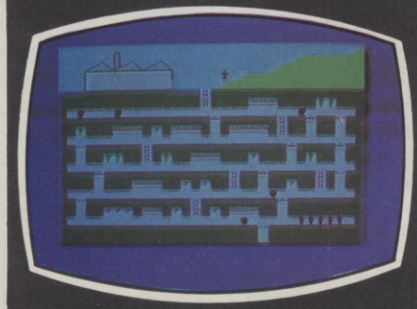
GRAPHICS	4
SOUND	3
EASE OF USE	5
ORIGINALITY	1
LASTING INTEREST	4
OVERALL	4



GAME: DOOM BUGS
MACHINE: SPECTRUM 16/48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: WORK FORCE
PRICE: £5.50

You must try to break through a trapdoor while gobbling up eggs and Grubbers in a hopeless attempt at preventing them turning into lethal red-backed Grubbers. **CA**

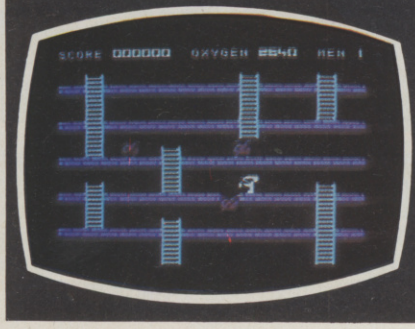
GRAPHICS	6
SOUND	4
EASE OF USE	5
ORIGINALITY	5
LASTING INTEREST	5
OVERALL	5



GAME: PITMAN SEVEN
MACHINE: SPECTRUM 48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: VISIONS
PRICE: £6.95

The setting is a South African mine – you have to reach the surface avoiding boulders and gas clouds by darting down ladders or jumping on to beams. **CA**

GRAPHICS	5
SOUND	3
EASE OF USE	3
ORIGINALITY	8
LASTING INTEREST	4
OVERALL	5



GAME: SAM SPADE
MACHINE: SPECTRUM 16/48K
JOYSTICK: KEMPSTON OPTIONAL
CATEGORY: ARCADE
SUPPLIER: SILVERSOFT
PRICE: £5.95

You knock holes in the scaffolding and then hammer the monsters that fall in. But the green and yellow monsters have to be knocked through more than one layer. Addictive. **CA**

GRAPHICS	5
SOUND	3
EASE OF USE	5
ORIGINALITY	2
LASTING INTEREST	7
OVERALL	6

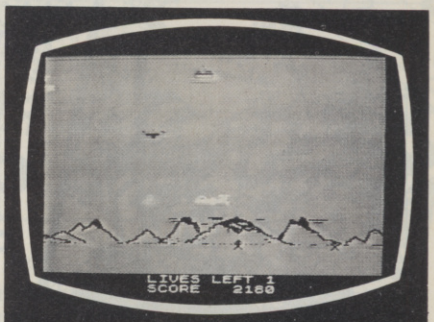
SPECTRUM • SPECTRUM

GAME: ASTROPLANE
MACHINE: SPECTRUM 48K
JOYSTICK: KEMPSTON OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ROMIK
PRICE: £5.99

A *Defender*-type game with scrolling landscapes. You have to transport mutants to a factory while avoiding four types of aliens.

Hard to play and not particularly exciting. The graphics could have been a lot more colourful. **CA**

GRAPHICS	4
SOUND	4
EASE OF USE	2
ORIGINALITY	5
LASTING INTEREST	4
OVERALL	4

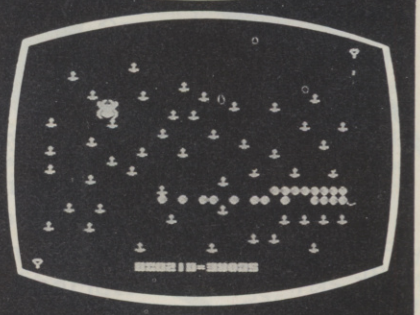


GAME: RAPEDES
MACHINE: SPECTRUM 16/48K
JOYSTICK: KEMPSTON OTIONAL
CATEGORY: ARCADE
SUPPLIER: VISIONS
PRICE: £5.95

Average version of Centipede – clear if unambitious graphics a choice of game

speeds, and a nice fat spider which is easy to hit. **CA**

GRAPHICS	4
SOUND	4
EASE OF USE	3
ORIGINALITY	1
LASTING INTEREST	2
OVERALL	3

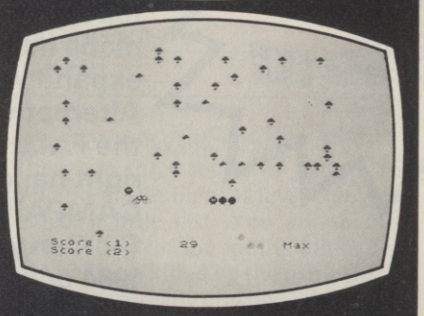


GAME: CREEPY CRAWLER
MACHINE: SPECTRUM 16/48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: MIKRO-GEN
PRICE: £5.95

Yet another *Centipede*, a game which is always pretty hopeless on the Spectrum. This one has adequate (but boring)

graphics, adequate (but boring) sound. Not a good buy. **CA**

GRAPHICS	2
SOUND	2
EASE OF USE	5
ORIGINALITY	1
LASTING INTEREST	2
OVERALL	2

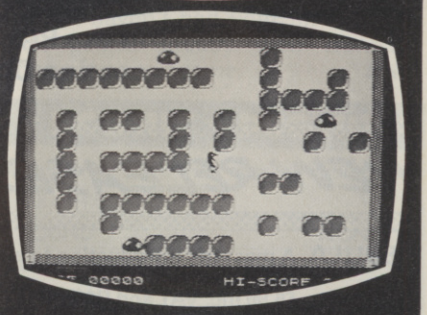


GAME: FREEZ BEES
MACHINE: SPECTRUM 48K
JOYSTICK: KEMPSTON OPTIONAL
CATEGORY: ARCADE
SUPPLIER: SILVERSOFT
PRICE: £5.95

Nice version of the game *Penguin* – kill the snow bees by sliding ice blocks on to them or stun them at the electric fence.

Fast and furious action. **CA**

GRAPHICS	5
SOUND	4
EASE OF USE	3
ORIGINALITY	1
LASTING INTEREST	6
OVERALL	5

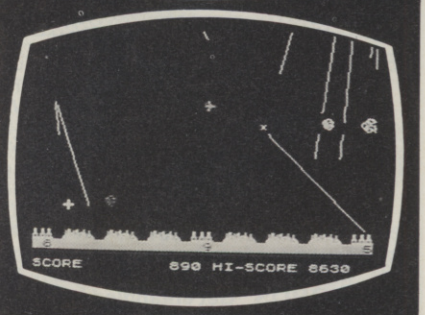


GAME: ARMAGEDDON
MACHINE: SPECTRUM 16/48K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: SILVERSOFT
PRICE: £5.95

A very nice translation of *Missile Command*. Fast, colourful and with extra attacking weapons which can only be

destroyed by direct hits. Great fun, if you like saving the earth. **CA**

GRAPHICS	5
SOUND	5
EASE OF USE	3
ORIGINALITY	2
LASTING INTEREST	7
OVERALL	6

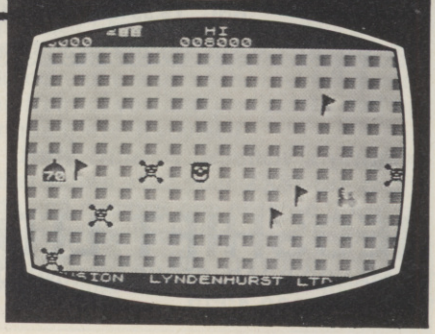


GAME: DE-FUSION
MACHINE: SPECTRUM 48K
JOYSTICK: KEMPSTON OPTIONAL
CATEGORY: ARCADE
SUPPLIER: LYNDENHURST LTD
PRICE: £5.50

Get points by reaching (and defusing) bombs without being caught by, yes, a bovver boot. The skill is to choose the

right route, because your stepping stones disappear after being used. **CA**

GRAPHICS	3
SOUND	2
EASE OF USE	2
ORIGINALITY	6
LASTING INTEREST	4
OVERALL	3



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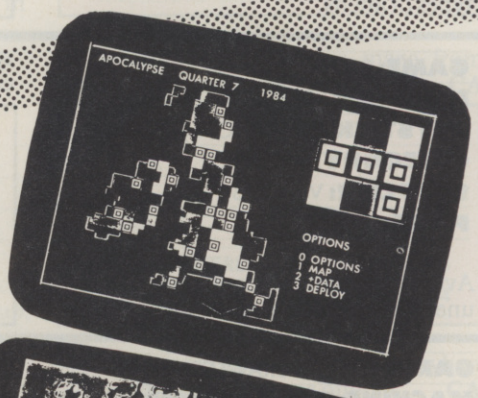

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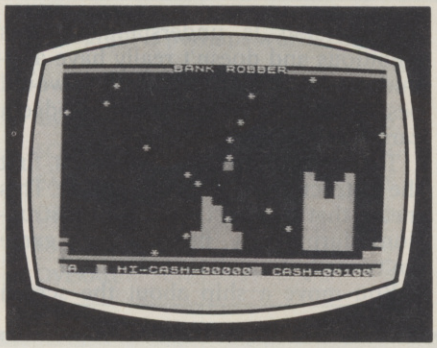
GAME: BANK ROBBER
MACHINE: ZX81 + 16K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: ROMIK
PRICE: £4.99



GRAPHICS	6
SOUND	NONE
EASE OF USE	10
ORIGINALITY	7
LASTING INTEREST	6
OVERALL	6

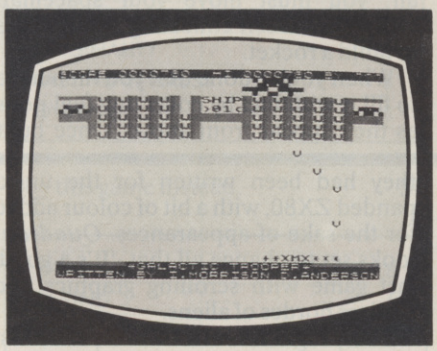
If you've ever fancied yourself as the man who wears the stocking mask and holds the shotgun at a pretty bank clerk then Romik have given you your chance to get rich.

In Bank Robber you must move your man, a letter 'A', from your house on the right hand side of the screen, dash over to the bank and grab the cash. You'll now be a pound sign, and must run back home with the dough. However you can only enter the bank or your house when the door is open.

There appears to be a lack of policemen in the area around the bank but that doesn't mean that you're going to have an easy time. Someone is throwing bricks, meteorites, and pills at you.

As ever on the ZX81 the graphics are not exactly awe-inspiring but they are adequate for the game. **SNC**

GAME: GALACTIC TROOPER
MACHINE: ZX81 + 16K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: ROMIK
PRICE: £4.99



GRAPHICS	7
SOUND	NONE
EASE OF USE	6
ORIGINALITY	3
LASTING INTEREST	6
OVERALL	6

Stopping the aliens from landing on the earth is hardly an original theme for a computer game, but nevertheless such games keep appearing on the market.

Galactic Trooper is the latest 'blast the alien' offering from Romik software. If you accept the graphic limitations of the ZX81 together with its lack of sound then Galactic Trooper will offer a fast and skillful invader type of game.

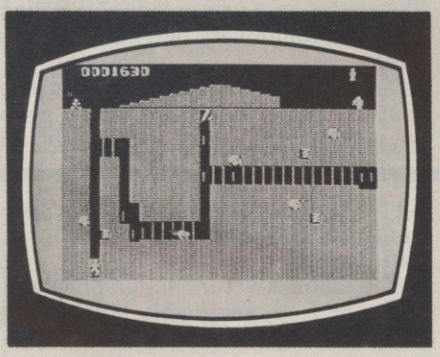
The aliens (letter V's) are deposited in columns, by a very realistic mother ship. When a column is full the V's begin to rain down on your laser base. If you are hit you lose one of your lives. Not only do you have to avoid the aliens as they fall, you also have to avoid the explosion they make as they hit the ground.

There are three levels of play to the game and at the highest level the game does get a little fast. You are so busy concentrating on the falling aliens that you usually get killed by the explosion of one that has already crashed.

If you haven't had your fill of ZX81 space games already then *Galactic Trooper* is a good game. **SNC**

★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★

GAME: FORTY NINER
MACHINE: ZX81 + 16K
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: SOFTWARE FARM
PRICE:



GRAPHICS	10
SOUND	NONE
EASE OF USE	7
ORIGINALITY	8
LASTING INTEREST	8
OVERALL	8

When a program for a ZX81 has a cassette cover that claims resolution identical to the Spectrum without any additional hardware you will probably be a little concerned about the truthfulness of such a statement, but Software Farm's game *Forty Niner* lives up to their claim giving full high resolution graphics.

The game takes place in the 1849 Great American Gold Rush and our hero has rushed to the west coast to make his fortune. You must collect as many gold nuggets as you can while avoiding the hazards of the mine.

Any normal person would have picked a mine with ordinary dangers, like rockfalls, but as ever our character had to pick one inhabited by strange monsters.

The first monster that any explorer will encounter is the Gremlin. This is a very cute looking 'mouth on legs' who bounces away on the surface eating away at your waste earth pile trying to reach the entrance to your mine. Once it does there is no escape.

Next you face the Giant Rats which are truly intimidating, wagging their tails as they hunt you around the mine.

They can even dig through the soil, suddenly jumping out in front of you – then you're a goner.

Your miner does have some unlikely allies though. He can free snakes who will then wiggle their way to the surface killing any rats they meet on their way. He can also knock out a support causing a small cave-in to block the vicious vermin.

Software Farm allow you to choose your own keys to play the game. There are five controls in all: up, down, left, right and knock out a support. In practice I found it better to rely on the snakes to kill the rats because if you knock out a support the rockfall occurs in front of you and you usually end up running over it yourself.

Forty Niner is definitely a program that shows what your ZX81 can really do and deserves one of those 'I had to keep going back for more' ratings. I wonder when the Spectrum version with sound and colour will make an appearance... **SNC**

GAME: SPACE JOUST
MACHINE: VIC 20 UNEXPANDED
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: SOFTWARE PROJECTS
PRICE: £5.95

In the original arcade version of *Space Joust* the player mounts a winged steed and skewers his enemies with a lance. This version is understandably less ambitious and doesn't really have anything to do with jousting at all. It would best be described as driving dodgem cars in deep space.

The program loads in two parts, first the instructions and then the game. This means that you can't refer to the instructions during play, but then the game isn't exactly difficult to understand.

You move a ship about the screen ramming aliens. Providing you ram them from above they will explode, releasing an escape capsule which you can also ram for extra points.

Ignore the capsule and it will sink to the ground, change back into a ship, and take to the air again.

This may sound too easy to be true, but the outcome of each collision depends on your angle of approach. If you don't ram them from above, or if you

GAME: JET PAC
MACHINE: VIC 20 + 8K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ULTIMATE
PRICE: £5.50

This is a great game with excellent graphics and sound that first appeared on the Spectrum but is now available in identical format for other machines.

Using alternate keys on the bottom row to move left and right, and any key on the third row to thrust him into the air, you must move your spaceman about the screen collecting three stages to build a rocket.

When you've done that you then have to fill it with fuel by collecting fuel pods as they appear from above. Once built and fuelled, the rocket will blast into space as soon as you enter it.

All this would be very easy were it not or the thousands of aliens who rush in from either side of the screen, intent on your destruction. You can get your own back by punching the fire button (or any key on the second row).

From time to time valuable items (gold bars, isotopes, and the like) will fall from the skies and grabbing them

GAME: QUADRANT
MACHINE: VIC 20 20 UNEXPANDED
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: ROMIK
PRICE: £6.99

The trouble with a lot of games for the unexpanded Vic is that they look as if they had been written for the unexpanded ZX80, with a bit of colour added for the sake of appearances. *Quadrant* looks set to change all that. 'It's a good, fast game with scrolling graphics and endless hordes of aliens.

The program loads in two parts, first the instructions and then the game itself. A mountainous landscape scrolls from right to left, with a little man running for his life along the bottom of the screen.

Using the A and D keys you can make him run faster or slower, thereby moving him right and left respectively.

He cannot go off the edge of the screen, and every few yards a large crater scrolls beneath him.

You have to help him jump over this by pressing the Return key, otherwise he explodes. You have four lives altogether.

All this on its own would be enough

GAME: SHIFTY
MACHINE: VIC 20 + 8K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: AUDIOGENIC
PRICE: £5.95

Take the original version of *PacMan*, remove the power pills, the exits from the maze, the on-screen scoring and the hi-score facility, and add instead a few revolving doors.

Now give it a new name and put it on the market as 'a new arcade concoction with a revolutionary new twist'. That's *Shifty*.

To be fair to Audiogenic this is a very playable game, but only if you've got a joystick. If you have to use the keyboard then 'P' for up, 'L' for left, ';' for right and '.' down makes playing for any longer than a few minutes a tiresome and frustrating affair.

Add to this annoyance all the omissions mentioned above and you begin to see that unless those revolving doors add something very special then this is going to be one big yawn.

Well, the doors do make a big differ-

GAME: A COUNTRY GARDEN
MACHINE: VIC 20 + 8K
JOYSTICK: OPTIONAL
CATEGORY: ARCADE
SUPPLIER: SUPERSOFT
PRICE: £7.95

Entering this *Country Garden* you are greeted with a few bars from a familiar English folk-song and given the opportunity to play Supersoft's version of *Centipede*.

The action is fast and the graphics and sound perfectly acceptable, but the only thing that ever crosses the screen (apart from the centipede) is a snail, and that lives up to its name by being about as difficult to hit as a garden wall.

Don't Supersoft know that even Little Miss Muffit would miss spiders if they didn't appear in a game of *Centipede*?

Various unidentifiable creatures drop from above at high speed, but assuming you've got your finger on the repeat fire button you're going to hit them before they hit you, so they don't pose much of a threat.

The ease of the game makes possible an interesting challenge. I think I must

GAME: ASK THE FAMILY
MACHINE: VIC 20 8/16K
JOYSTICK: NO
CATEGORY: QUIZ
SUPPLIER: COMMODORE/IVAN BERG
PRICE: £9.99

The popular quiz in which mummy, daddy and the little ones take on an opposing family in a test of general knowledge is now available in a version for the Vic 20.

One team uses the space bar as a buzzer, while the other uses the function keys. It's almost the real thing as the teams crowd round, fingers hovering over the buzzers, to strike first.

All that's missing really is the genial, but sometimes sharp, chairmanship of Robert Robinson.

The program loads in two parts; the first cassette holds the operating system and the second contains the actual questions.

Once loaded however, the program is straightforward. Questions are offered first to one side and then, if they are unable to answer, to the other.

There is a good variety of questions on the program including general knowledge, spot the music and IQ test-style puzzles. For instance, who wrote the opera Death in Venice? At what temperature are Fahrenheit and Centigrade the same?

VIC 20 • VIC 20 • VIC 20

bump into them from below, then you'll quickly join your ancestors.

You have four lives, and are faced with different coloured aliens who move faster as you progress through the different levels.

There is a hi-score facility that is updated between games but is not displayed during play, and the action is satisfyingly speedy. If you don't have a memory expansion for your Vic then this program is perhaps worth considering. **SC**

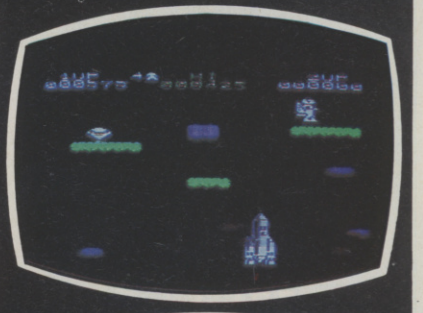
GRAPHICS	5
SOUND	4
EASE OF USE	5
ORIGINALITY	3
LASTING INTEREST	6
OVERALL	5

scores you extra points.

Once you've blasted away from the planet surface your ship rises to the top of the screen and then descends again, to land on another planet. Fighting off a different set of aliens you refuel once more, collect as much treasure as you can, and then blast off again.

This process continues until you get bored and switch the machine off, but I can assure you that that won't be for a very long time. **SC**

GRAPHICS	8
SOUND	6
EASE OF USE	6
ORIGINALITY	8
LASTING INTEREST	8
OVERALL	8



to keep you on the hop, but there is also the small matter of a long-standing disagreement between your little man and the Arcturian Macrobats.

You know who they are, don't you? They're the aliens who have nothing better to do but swoop overhead dropping bombs until you consign them to eternity with a quick jab at the S key.

Unexpanded Vic owners can now stop dreaming about memory add-ons. Buy this game instead. **SC**

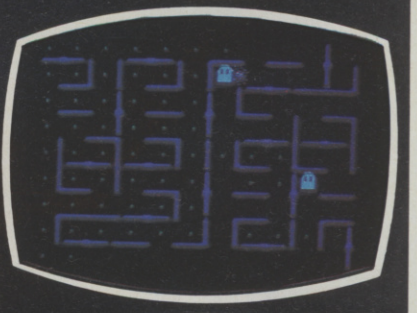
GRAPHICS	8
SOUND	6
EASE OF USE	6
ORIGINALITY	6
LASTING INTEREST	7
OVERALL	7

ence. You can pass through them but the ghosts chasing you can't.

There are three ghosts to start with, and these are soon joined by a fourth. They move faster as the game progresses and are very intelligent.

Despite the absence of power pills and exits, the doors do succeed in adding a new tactical twist that makes *Shifty* fun to play, even if it is a little unexciting. **SC**

GRAPHICS	4
SOUND	3
EASE OF USE	3
ORIGINALITY	5
LASTING INTEREST	6
OVERALL	5

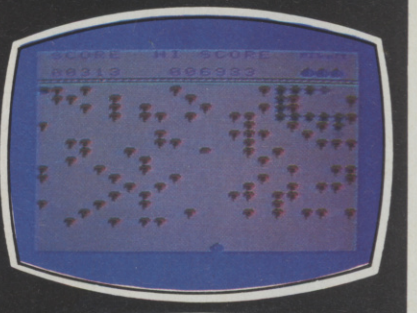


be the first person to wipe out every mushroom on the screen in *Centipede*.

The choice of movement keys (A and S for left and right, W for up, Z down and Return for fire) is ridiculously awkward so if you don't have a joystick you should think twice before shelling out for this game.

The rest of us may go for the sound and the speed, but there isn't much else here to tempt the insect-slayer. **SC**

GRAPHICS	6
SOUND	7
EASE OF USE	3
ORIGINALITY	0
LASTING INTEREST	5
OVERALL	5



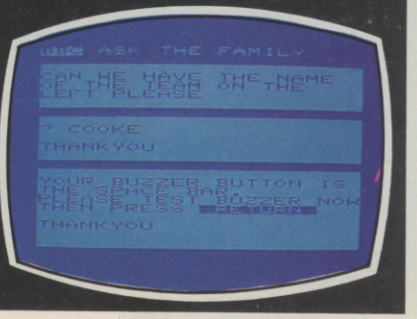
So the questions are neither ridiculously easy nor outrageously difficult.

The computer's limited range of responses, though, can become very annoying. Sometimes it patronises you if you get a correct answer: 'That's just the answer I'm looking for.'

Get it wrong and it sympathises: 'I'm afraid not.' Pretty soon you feel ike punching the smug creep in the VDU.

But the main drawback to this program is that it contains only 120 questions – hardly enough to make it one you will want to return to. **PC**

GRAPHICS	NONE
SOUND	NONE
EASE OF USE	7
ORIGINALITY	7
LASTING INTEREST	4
OVERALL	5



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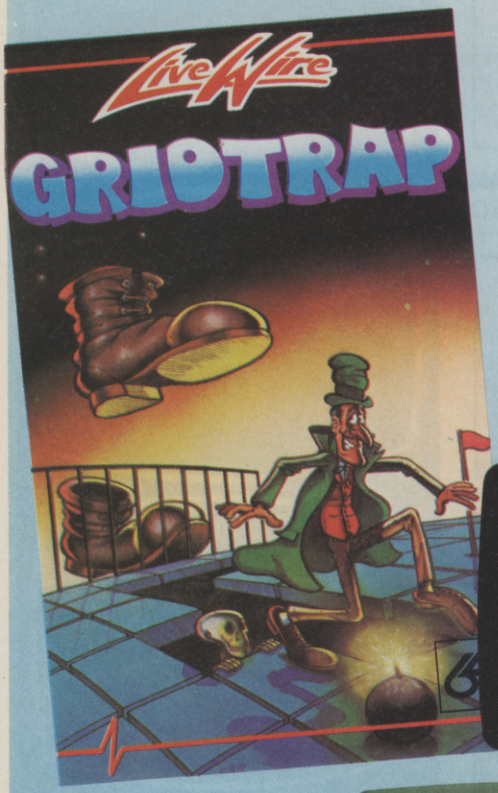

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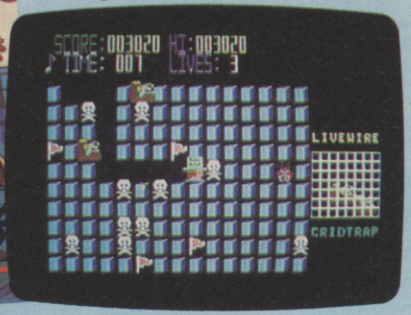

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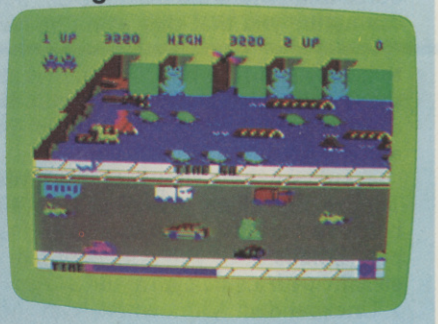

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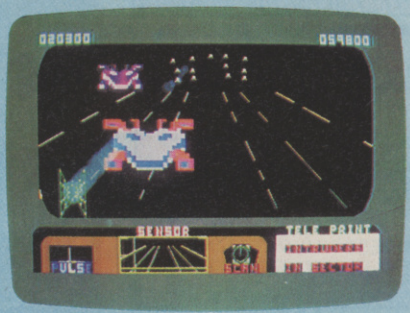

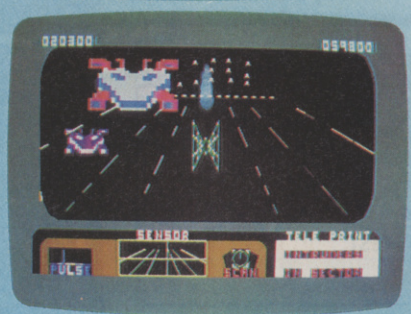

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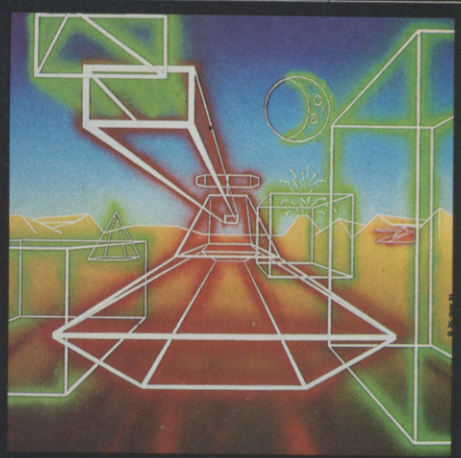

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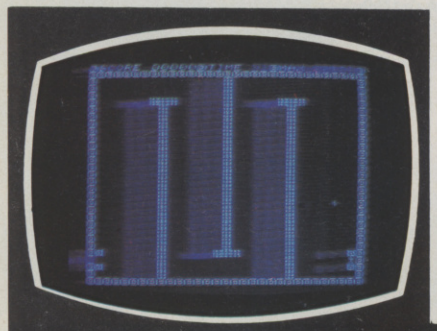

GAME: FLOYDS BANK
MACHINE: LYNX
JOYSTICK: NO
CATEGORY: ARCADE
SUPPLIER: ROMIK
PRICE: £9.99

I almost had to rob a bank to pay for my Lynx, but I settled for an overdraft instead. Now Romik have given me the chance to make up for lost opportunity, but to be honest I wouldn't even rob a piggy bank to pay for this game, let alone pay for it out of my own pocket.

Your task is to penetrate the defences of Floyds Bank, steal the gold, and escape. There are four screens, each of which you must complete in a race against the clock.

You are given two attempts at each screen and if you succeed you pass on to the next. Like other Romik games the

GAME: ET PHONE HOME
MACHINE: ATARI
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: ATARI
PRICE: £28.95

ET is one of the few aliens who are not summoned to the screen just to be shot at. Like a poodle, he's too cute to be shot at, and, as in the film, he needs help to 'phone home'.

You are ET's pal, Elliot, and your mission is to collect various pieces of junk needed to construct a communications device, so ET can make the call.

ET appears telepathically on the screen with the necessary objects, things like coathangers, umbrellas and forks,

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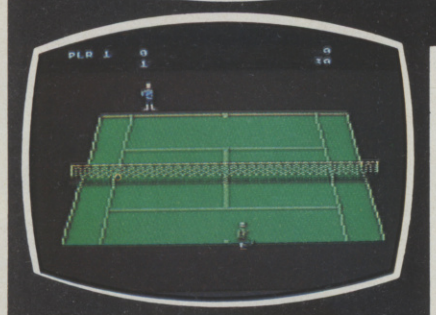

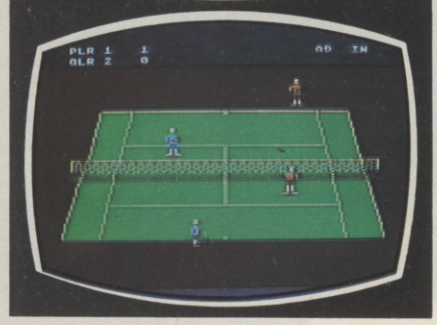

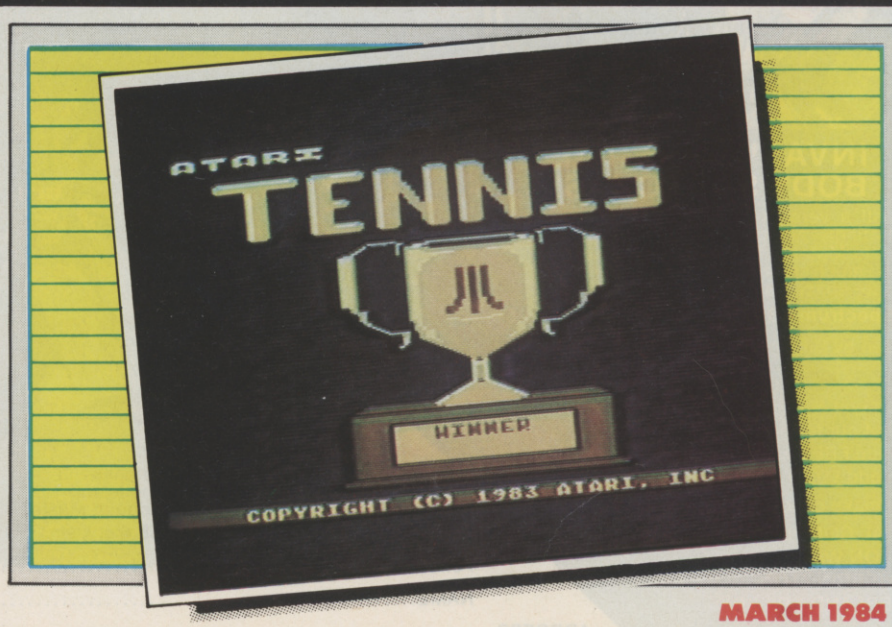

ATARI • LYNX • ATARI

action is very fast at the higher levels, but in this case the graphics are appalling when one takes into account the Lynx's capabilities.

Using the cursor keys you manoeuvre a small figure through the first three screens, dodging mines in the first, navigating a constantly changing maze in the second, and collecting treasure in the third.

In the fourth screen, which is the only really challenging one, you have to escape from a room patrolled by heat-seeking robots.

There are nine levels of play and at the highest level this last screen is very difficult indeed.

Floyds Bank offers a freeze option and the possibility of playing a silent game if the clicks and beeps get on your nerves. The Lynx has been very badly served when it comes to games software, but sadly this offering from Romik doesn't do much to fill the gap. **SC**

GRAPHICS	2
SOUND	5
EASE OF USE	6
ORIGINALITY	8
LASTING INTEREST	3
OVERALL	3

in various colours. Memorize these pieces before the screen changes to an aerial view of Elliot's town, and then it's a matter of running through the town searching for them.

All the while, ET's energy is draining and policemen and scientists are dashing about, able to intercept you and relieve you of objects.

The best thing about ET is the strong sense of atmosphere created. Small-town America is represented brilliantly with houses, trees and cars, all drawn in fine detail.

However, even at skill level 9, the game is simple. Apart from the time limit on ET's energy, there's little problem finding pieces and avoiding the cops.

But for those spellbound by the film, perhaps the intellectual challenge is enough. **WD**

GRAPHICS	8
SOUND	7
EASE OF USE	6
ORIGINALITY	8
LASTING INTEREST	4
OVERALL	5

PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ P

GAME: POLE POSITION
MACHINE: ATARI 400/800/XL
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: ATARI
PRICE: £28.95

From the moment the Atari dirigible floats across the screen trailing the message 'Prepare to Qualify' you know that this is going to be a terrific version of the arcade motor racing game.

There's something about that message, and the distinctive tune that accompanies it, which sets the adrenalin flowing. You don't need to put on the fireproof suit, the gloves and the helmet, or to kiss the glamorous girlfriend what might be a last goodbye. All you need to do is take a firm grasp of the joystick.

Controls are quite simple: joystick forward starts you going in low gear, back moves you into high at around 80 mph and the fire button allows you to brake. Top speed is around 195 mph, but it is not advisable to try taking corners that fast!

In order to take part in the race itself, the player first has to complete the qualifying lap in less than 70 seconds. You then line up on the grid for the race proper and the fun begins as you try to move through the field and get a fast time.

Steering requires you to put your whole body into it as you brake frantically and sweep around the long bends, or desperately attempt to avoid crashing into a billboard or another car.

The graphics are superb, with blue skies and a backdrop of snow-capped mountains. Sound, too, is very good as brakes screech and engines rev-up.

But keep your eyes on the road or you'll end up with third degree burns. **PC**

GRAPHICS	10
SOUND	9
EASE OF USE	8
ORIGINALITY	6
LASTING INTEREST	8
OVERALL	8

PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ PCG HIT ★ P

GAME: TENNIS
MACHINE: ATARI 400,800,XL
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: ATARI
PRICE: £24.95

This game is probably my only chance to play top class tennis, to serve and volley and smash and lob just like Bjorn Borg. Well, almost like Bjorn Borg. Atari's tennis game is a remarkable feat of games design, as far from the old pub ping pong as the Space Shuttle is from Sputnik.

The court is displayed giving you a view similar to the one you get on TV from Wimbledon. It is a rich green colour, but the notes do not specify what kind of surface it is. From the way it plays it seems to be grass rather than carpet.

There are many options available: singles against another player, singles against the computer or doubles against another player. Controlling your player with the joystick takes some practice, but once you've got the hang of it you have a command over his actions which is probably better than your control over your own limbs.

The simplest way to play is just to move the man to the ball; in this case he will always hit it back to the opponent's centre court. But if you get to the ball quickly enough you can, by manipulating the joystick, hit the ball just about anywhere you like. The trick, as in the real thing, is to catch your opponent out of position.

The great thing about this game is that you can play nearly every shot that you can in the outside game. And there's no sweat, no expensive equipment and no error-prone umpire.

Overall, *Tennis* cannot fail to impress. From the shadow the ball casts to the variety of shots available it shows itself to be one of the cleverest simulations around. **PC**

GRAPHICS	9
SOUND	8
EASE OF USE	9
ORIGINALITY	8
LASTING INTEREST	9
OVERALL	9

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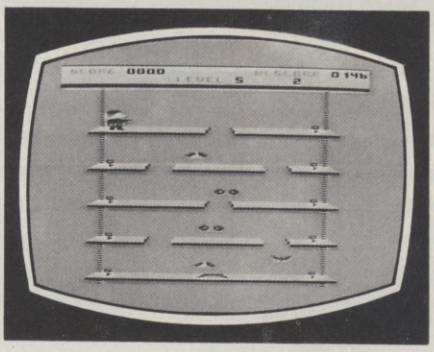
• DRAGON • DRAGON

GAME: DANGER RANGER
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: MICRODEAL
PRICE: £8.00



GRAPHICS	9
SOUND	8
EASE OF USE	7
ORIGINALITY	6
LASTING INTEREST	8
OVERALL	8

Danger Ranger from Microdeal gives you the opportunity of taking on the role of a space age treasure hunter.

Our intrepid adventurer starts the quest in the Chamber of Pasha, made up of a series of five platforms.

You have to collect 10 keys, one being located at either end of each platform.

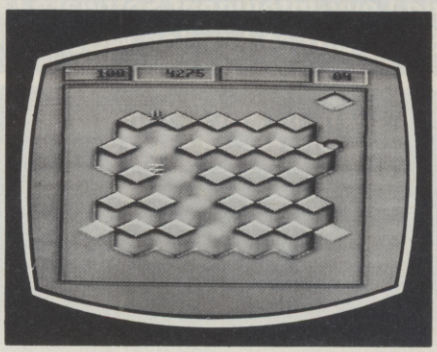
The baddies are floating urns which move up and down at the edge of the platforms firing shots at your man far too often for comfort. Danger Ranger can jump over or duck the shots and he can always shoot them with his own laser and send them burning to the floor of the chamber. He must also look out for roving eyes and radioactive bats.

On completion of level one our hero is transported to the acid chamber. Now the Ranger can collect treasure chests while avoiding drops of deadly acid which fall from the ceiling and rise from the floor.

As if that wasn't enough to discourage you there are a number of demons in the chamber who as the game progresses require a greater number of shots to kill them.

Microdeal should have a winner on their hands with *Danger Ranger*. A simple game to play but one that it will take you a lot of practice to master (it took me a good hour to get on to level two). But a practice mode is included to allow you to see each level without getting killed. **SNC**

GAME: BLOC HEAD
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: MICRODEAL
PRICE: £7.95



GRAPHICS	8
SOUND	7
EASE OF USE	6
ORIGINALITY	2
LASTING INTEREST	8
OVERALL	8

If you have been down to the arcades recently you may have seen a game called *Q-Bert* that is becoming very popular. *Bloc Head* is Dragon Data's version. In the arcade game you jump around a three-dimensional pyramid changing the colour of the blocks you land on. In *Bloc Head* the pyramid has reverted into a rectangle but the idea of the game remains the same.

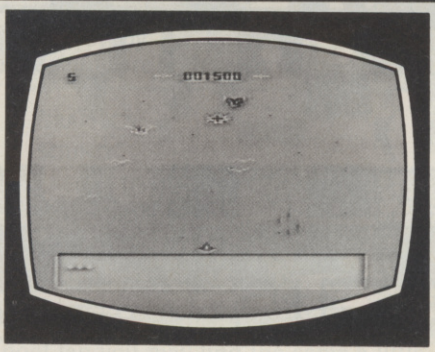
Jumping around a load of cubes doesn't sound too bad, it's when you realise that there are number of 'things' around that the trouble starts. Jumping onto the Blue Egg or a monster called Oops! will score extra points, but I found that they jumped on me first.

'Spring' also lives on the blocks and he doesn't seem to take too kindly to you jumping around changing the colour scheme. Spring is very smart and takes the shortest route to your position killing you whenever the opportunity arises.

You are given a couple of 'Bus stops' to aid you in your cube colouring. Jumping onto one of these will transport you back up to the top of the screen. And if you can trick Spring into following you, a 500 point bonus is scored.

Bloc Head has a very simple scenario but is a challenging game to play. It appears to be so easy that you blame yourself for being killed which leads to a severe case of 'I'll do it next time!' Buy it and drive yourself nuts. **SNC**

GAME: DEVIL ASSAULT
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: MICRODEAL
PRICE: £8.00



GRAPHICS	7
SOUND	7
EASE OF USE	8
ORIGINALITY	4
LASTING INTEREST	6
OVERALL	6

As ever you are in command of the last fighter and have been given the task of defending the earth.

But even though the scenario may sound familiar, the enemy isn't. Instead of the usual galactic being intent on destroying the Earth, the Devil himself has supposedly unleashed the hordes of Hell.

You are given a choice of six skill levels which determine both the start level and the type of missile fired by your ship. Even numbers give a missile that flies straight up. Odd numbers allow you to move the missile left or right with the joystick, something that I found very difficult because while you concentrate on guiding your missile to its destination your man usually ends up underneath an enemy's bomb.

Devil Assault has three attack waves. First on the attack are vampire bats. Instead of blowing up when hit they split into two, to cause twice as much trouble.

Next come the Crazed Robots. These march down the screen dropping bombs as they go.

In the final wave the cute looking Sproings appear. They bounce around the screen trying to stomp on your base. When hit a Sproing may release a little Sproing which tries to make it to the top of the screen.

Devil Assault is basically just another shoot-'em-up game with some original nasties. All the graphics are large and well animated, a pleasant change from the usual character-sized aliens that are impossible to hit. A very playable game, albeit in questionable taste. **SNC**

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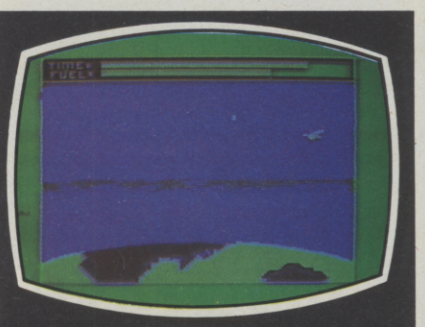
GAME: SHUTTLEZAP
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: DRAGON DATA
PRICE: £12.95

Dragon Data claim that *Shuttlezap* is a futuristic, fast action, fun game that talks. Don't believe a word of it! The so-called speech is totally unintelligible and the action is slow and extremely boring. At just under £13 this package is a rip-off. **SNC**

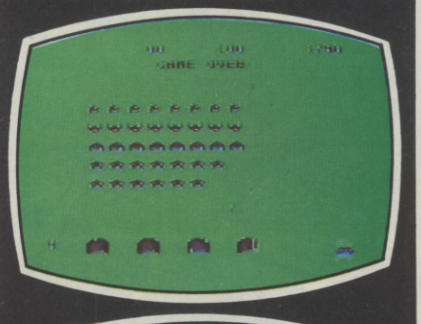
GRAPHICS	6
SOUND	5
EASE OF USE	5
ORIGINALITY	9
LASTING INTEREST	3
OVERALL	3



GAME: SPACE RAIDERS
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: MICRODEAL
PRICE: £8.00

You can choose to be a Rookie, Master or Expert in Microdeal's version of the ever popular *Space Invaders*, complete with the mystery-scoring mother ship. **SNC**

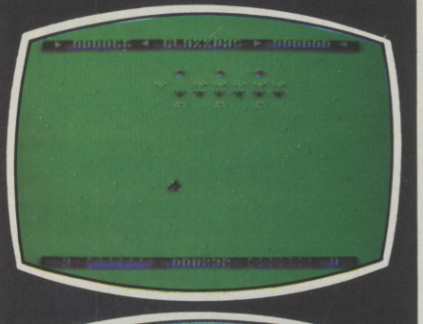
GRAPHICS	6
SOUND	5
EASE OF USE	8
ORIGINALITY	1
LASTING INTEREST	5
OVERALL	5



GAME: GLAXXONS
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: MICRODEAL
PRICE: £8.00

Glaxxons gives the Dragon 32 owner a chance to play a good copy of the arcade favourite at home. The graphics of the swooping and bombing aliens are rather small and hard to hit. **SNC**

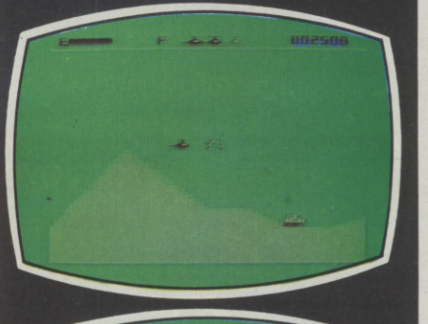
GRAPHICS	5
SOUND	6
EASE OF USE	6
ORIGINALITY	1
LASTING INTEREST	5
OVERALL	5



GAME: WHIRLYBIRD RUN
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: DRAGON DATA
PRICE: £12.95

Whirlybird Run is based on the arcade game *Scramble*, the rocket being replaced by a helicopter. **SNC**

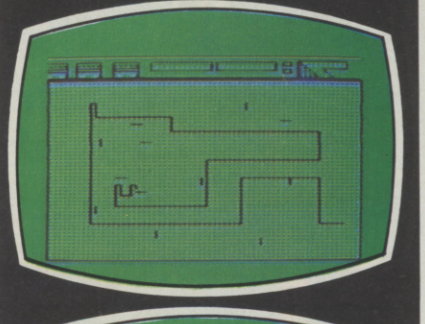
GRAPHICS	8
SOUND	8
EASE OF USE	7
ORIGINALITY	4
LASTING INTEREST	7
OVERALL	7



GAME: TRACE RACE
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: ARCADE
SUPPLIER: CABLE SOFTWARE
PRICE: £8.75

This is an advance on the old *Snake* theme. You have to guide a line through a grid, avoiding the obstacles placed in your way by the computer. Graphics and sound are both pretty dull. **PC**

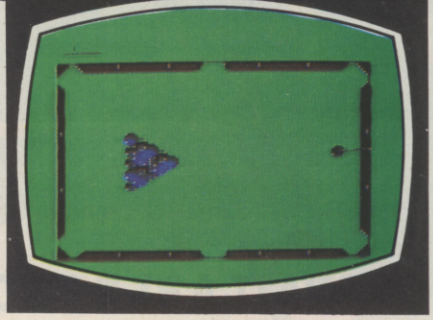
GRAPHICS	5
SOUND	5
EASE OF USE	4
ORIGINALITY	4
LASTING INTEREST	3
OVERALL	4



GAME: EIGHT BALL
MACHINE: DRAGON 32
JOYSTICK: NECESSARY
CATEGORY: SIMULATION
SUPPLIER: MICRODEAL
PRICE: £8.00

A two player game of pool which offers some very sophisticated features such as allowing you to put spin on the cue ball, just like the real game. If you are not a pool fan you may find the game a little slow. **SNC**

GRAPHICS	7
SOUND	5
EASE OF USE	7
ORIGINALITY	5
LASTING INTEREST	5
OVERALL	5



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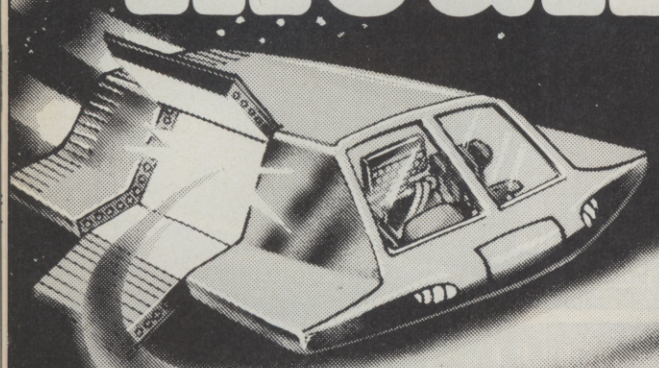

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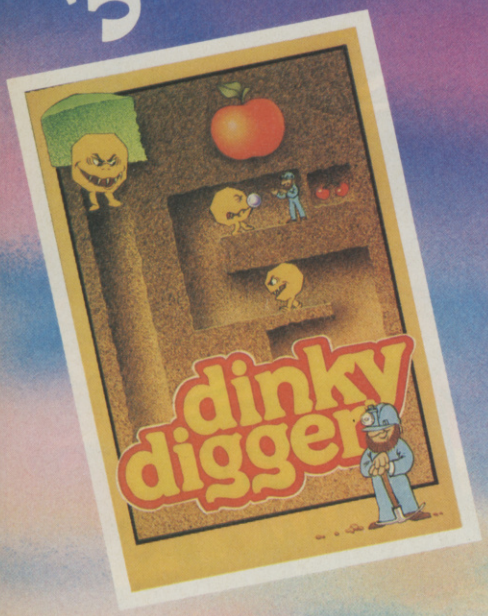

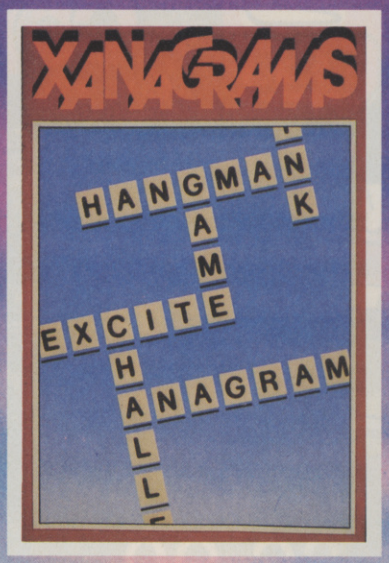

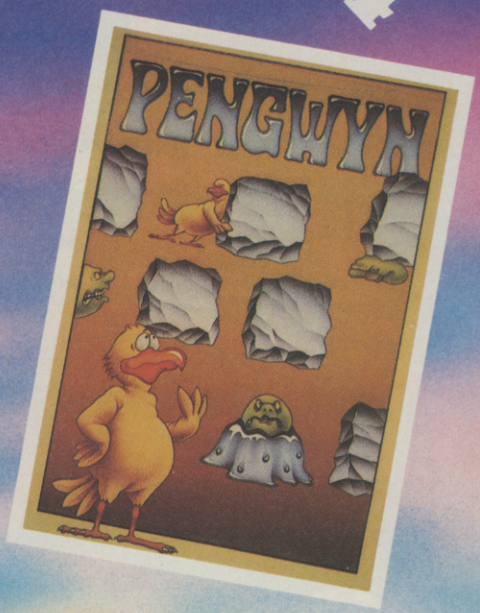

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Make your own games – for the fun of it, says Jeff Minter, the brains behind Llamasoft

DO-IT-YOURSELF DESIGNING

The first thing you'll ask is: why should I design new games when I can buy them? The chances are, if you are a keen games player, that you bought your micro because of its game-playing capability. Doubtless you saw flawless games of *Asteroids* or *Missile Command* being played and looked forward to many evenings of galactic mayhem.

This is fine, but your problems start once you decide to buy some software. *Killer Kong* or *Krazy Kong? Missile Base* or *Rocket Command?* The commercial scene at the moment is a bit like the music industry, many software companies promoting their programmers like pop stars. However, think how boring it would be if up-and-coming new bands simply recorded versions of Barry Manilow's Greatest Hits! The video game industry, like the music industry, cannot survive just by copying established successes. We need new ideas!

There are many advantages to doing your own designing. Consider that an arcade game is designed with specialized game hardware in mind – usually such games lose much in the transition to home micro.

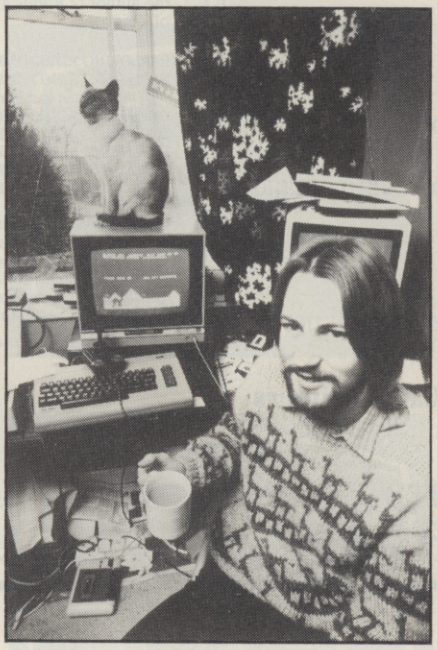
When designing an original game, you can design with your own programing limitations in mind. No matter if you don't know machine code! If you design your idea around the limitations of Basic, you can still produce playable, enjoyable games.

In play, your friends are more likely to enjoy an original, new and challenging game than a barely recognizable and slow version of an arcade game. No-one can say 'The fourth screen is missing!' or deride your game for differing from the arcade original, because your game IS the original!

Most importantly, games designing is fun! You can turn the silliest ideas into games, create games based on your friends, enemies, relatives or even your favourite animals. Vapourize your headmaster today!

Putting A Game Together

Step 1: Get Your Idea. This is, surprisingly, not too difficult. Don't try and force it; often a good idea will pop quite spontaneously into your head. You're not limited to outer space! Draw on everyday life where there are plenty of potentially amusing situations – my own game *Hover Bovver* was conceived whilst staring at a neatly mown lawn with a dog sitting on it; a zany imagination sufficed to turn this peaceful scene into the horticultural holocaust portrayed in that game.



'If you have too many moving objects the game will be slow. Is the extra flying teaspoon necessary?'

Keep a notebook handy to jot down any good ideas. Make plenty of notes: you can always discard unsuitable ideas along the way.

Talk your ideas over with another person, preferably a keen player. You can strike sparks off each other, one seeing possibilities the other may have missed.

Step 2: Man/Machine Merge. Once the idea is established, start thinking how you're going to put it into action on your machine. At this stage you will adjust your idea so that it fits your machine's display capabilities and your own programming expertise.

If you're going to use Basic, ask yourself: how fast does it need to be? The major limitation of Basic is the speed of moving objects. If you have too many or they are too large, the overall game speed will be slow. Perhaps you could get by with two bouncing televisions instead of four? Perhaps the extra flying teaspoon isn't really necessary? Don't be discouraged: I've seen very good games with only one or two moving objects on screen.

You will naturally have to consider the memory limitations of your micro. You probably won't get a 16-screen epic into a 3K machine! Decide how much memory you're going to give to graphics data; 64 user-defined characters take up about half a K.

Step 3: Go For Graphics. Here is where the real fun begins. Sit down and design the graphic images you're going to use. If you have a machine with sprites or user-defined characters, invest in a good character/sprite editor program since this is a great aid to producing good-looking results. Don't worry if you're rotten at drawing: pixel graphics are different and much easier. Even I can produce a recognizable camel.

Set up simple loops from Basic to animate your sprites or characters. You may discover your ogre has a limp, or your headmaster needs an extra pixel on the end of his nose. Get your graphics looking right, then save them. *Twice.* Having to re-do all your graphics because you erased the tape by accident is no joke!

Step 4: Write On, Brother! You should now know how your game will be coded and have all the graphics ready for use. You can now get on and write the game – but do it in an organized manner! A program written in a hurry is a horror to debug. A good game has three major sections: Initialization, Execution, Termination.

Initialization. This is the area of code which sets scores to zero, defines screen colours and prints up the play area. It is the first thing to run and should prepare the system for the game proper. It should print up titles and, if memory allows, offer instructions to the players and demonstrate the game.

Execution. This is the core of the game. A good *Execution* module might look like this:

```
1000 GOSUB stars
1010 GOSUB move me
1020 GOSUB move aliens
1030 GOSUB fire bullets
1040 GOSUB drop bombs
1050 GOTO 1000
```

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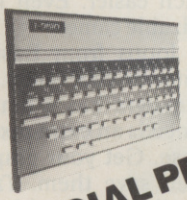

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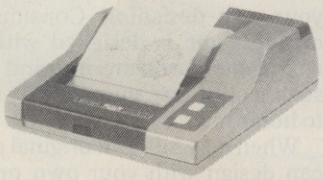

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As you can see, not much code! The secret of good games programming is to use lots of discrete sub-routines, installing and debugging each one before progressing to the next. Get your gun moving properly *before* you let it fire any bullets. Make the astral soccer hooligans walk properly *before* they start using their bovver boots.

By using self-contained modules like this, bugs are very easy to trap. You can selectively drop modules until the bug disappears, then debug the faulty module. Any good commercial programmer works in this way.

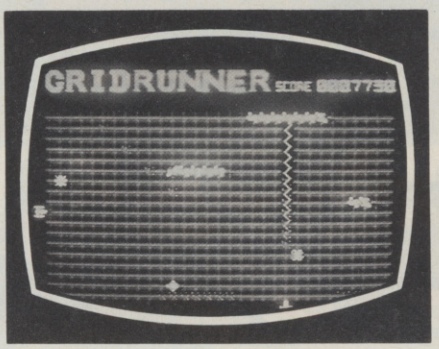
Termination. This section does things like printing GAME OVER, PIANO ONE etc, checking for high scores and perhaps entering them in a table, and asking if you want another game. The more frills and prettiness you can put into Initialization and Termination, the more professional your results will look. Don't worry about these if you haven't much memory, though: it's the game that's most important.

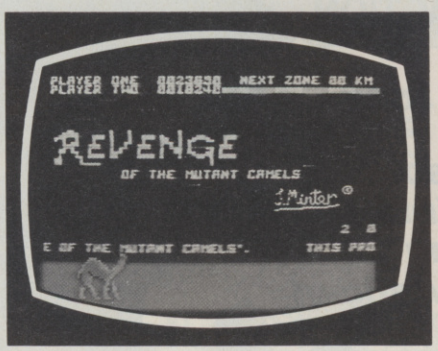
General Advice On Programming

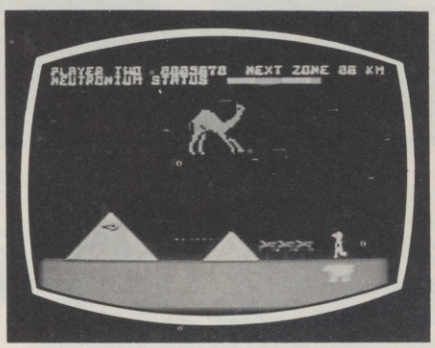
Use the full colour capabilities of your particular machine. People do like to see nice bright colours in video games. But for example, don't use green to excess on a Dragon: most Dragon owners see quite enough green whilst entering their own programs. Likewise blue on the CBM64, or cyan-and-white on the Vic. Get away from the 'standard' colours; a different screen adds interest to a game.

This 'getting away from the standard' should apply in other areas as well. If you have sufficient memory, define an alternate character set. **Don't** be tempted to pinch sets from other people's games. An original and appealing character set helps stamp your originality on the game, as well as looking most impressive.

If your micro has sound facilities, for heaven's sake use them. It is disappointing if, in an otherwise excellent game, the spaceship makes a noise like a Hoover and shooting an enemy results in an unrealistic blip. Use 'echo' effects; they really sound great. Try three successive 'zap' noises, first at full volume, then at two-thirds, then at one-third. Echo effects are simple to program and are used extensively by professional arcade designers.







'Once your game is finished, you should give it a thorough testing. Do the snakes spit often enough?'

Perhaps you or a friend of yours can play or read music? If so, theme tunes for your games really enhance the enjoyment of play. A quick blast of Genesis at the end of an attack wave really goes down well. (If you're selling games, make sure you don't infringe the copyright on any tunes you use.) Most micros with good sound generators provide a very helpful table of musical note values for you to use.

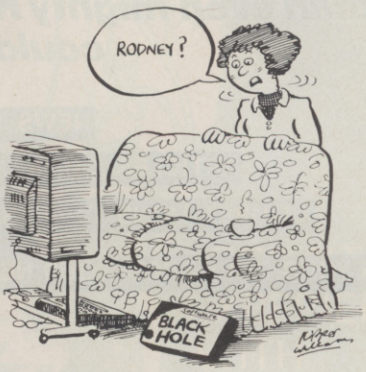
The Final Step: Testing, 1,2,3!

Once your game is finished, you should give it a thorough testing. Sit and play it for a long time. It is at this stage that you 'tweak' your game to maximum playability. Perhaps your goat moves too fast/too slow? Do the snakes spit often enough? You will adjust delay loops, scoring values and the like during this final phase until your game 'feels' right.

It is essential that a designer has a good 'feel' for a game. This can only be developed with time, and by playing a lot of games. Spend time in arcades and playing games on your micro; eventually you will instinctively know the difference in feel between a good game and a bad one.

Get other players to try your game, preferably people who've not seen it before. They'll play it in different ways and perhaps by their different style of play, expose lurking bugs you may have missed. They will also provide an indication of the difficulty; you may find the first wave easy, but you designed it! Perhaps total novices need an easier first wave.

As a commercial designer I can vouch for the benefits of this approach. My new games are play-tested by novices for at least a week, and on several occasions bugs I'd not suspected have turned up.



The Future

You may well find that you have a natural flair for designing games. Good – you will be the video star of the future! At the moment, the emphasis in the industry is on programming skill and who can produce the best arcade copies. However, the days of the whizz-kid programmer are numbered. Machines are getting more complex, with features such as sprite graphics making the programming of games a simple affair.

In a few years' time, the arcades will have moved on into laservideo and true-3D systems unsuitable for home adaptation, and fast games languages coupled with hardware sprite graphics and sonics generators far in advance of today's best will make programming *Donkey Kong* or *Pac-Man* simple enough for anyone to achieve.

With machines doing more for you, the emphasis will shift from programming skills to design skills. Teams of game designer/musician/graphic artists will become common, perhaps even gaining individual followings like pop groups.

The future will be a great time for the game designer, allowing creativity in a totally new entertainment medium. Break out of the rut of endless copying today while there's still time. We are on the verge of a whole new art form where the only boundaries are those of the imagination. ●

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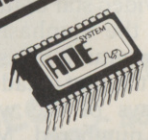

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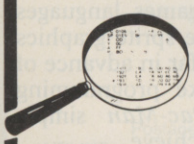

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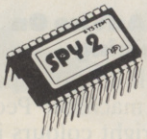

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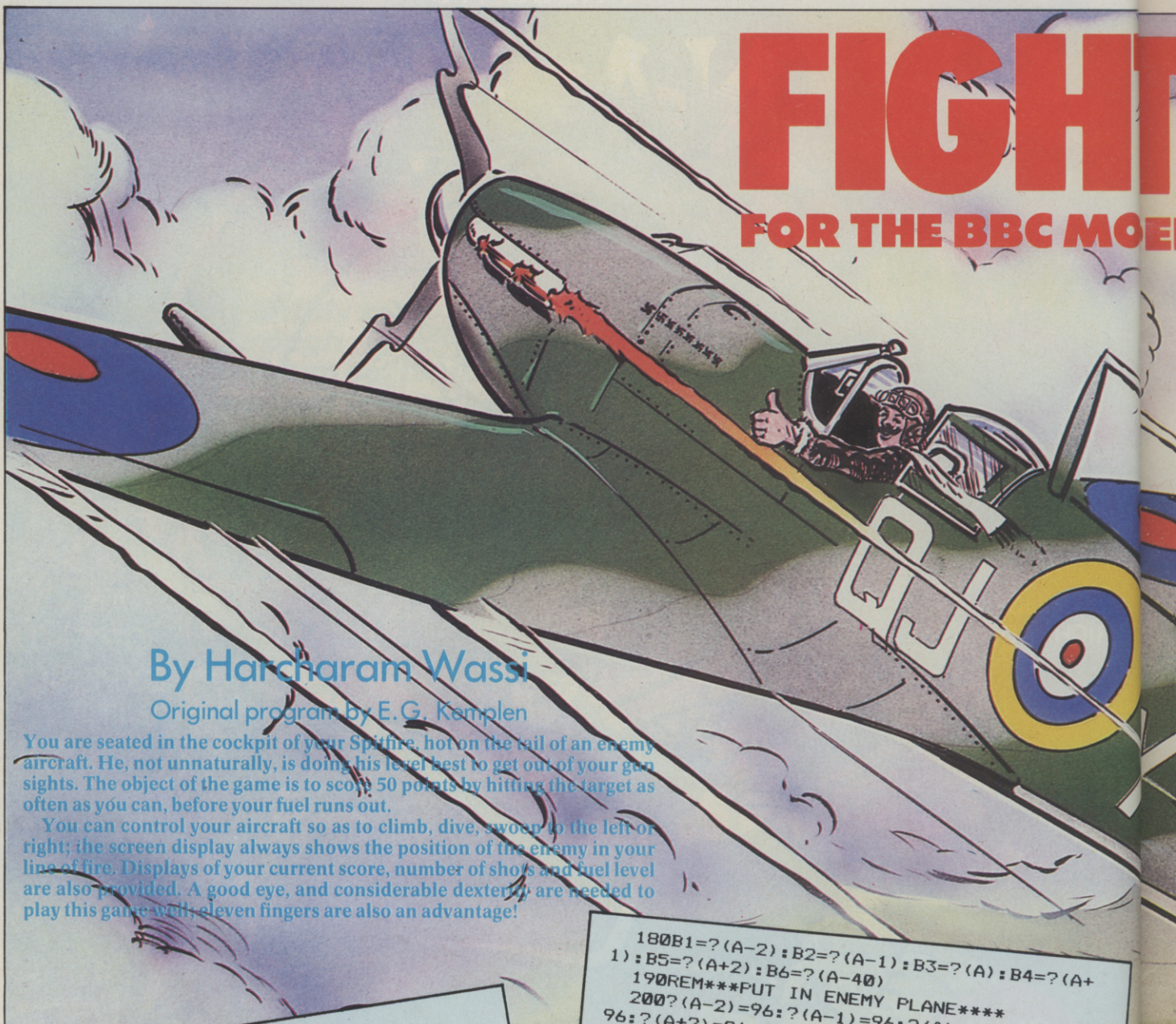

By Harcharam Wassi

Original program by E.G. Kamplen

You are seated in the cockpit of your Spitfire, hot on the tail of an enemy aircraft. He, not unnaturally, is doing his level best to get out of your gun sights. The object of the game is to score 50 points by hitting the target as often as you can, before your fuel runs out.

You can control your aircraft so as to climb, dive, swoop to the left or right; the screen display always shows the position of the enemy in your line of fire. Displays of your current score, number of shots and fuel level are also provided. A good eye, and considerable dexterity are needed to play this game well; eleven fingers are also an advantage!

```
L.
  10REM***FIGHTER PILOT****
  20REM***SET UP SCREEN****
  30ON ERROR : MODE 7 : END
  40*TV255
  50MODE7
  60VDU23,1,0;0;0;0;:REM*CURSOR OFF*
  70ENVELOPE 1,2,7,-1,0,15,45,0,5,-1,0,
-127,127,50
  80PROCinstruct
  90CLS
 100T=TIME:SC=0:S=0:AIM=0:II=0
 110ST%=0 : SF%=175
 120REM***SET UP GUNSIGHT****
 130 FOR I=1 TO 25:?(31764+40*I)=43:NEX
T
 140 FOR I=1 TO 40:?(32263+I)=43:?(3174
4+I)=32:NEXT
 150C=32284
 160 ?C=79
 170A=31844+(RND(5)*40):REM*POSITION OF
ENEMY*
 180B1=?(A-2):B2=?(A-1):B3=?(A):B4=?(A+
1):B5=?(A+2):B6=?(A-40)
 190REM***PUT IN ENEMY PLANE****
 200?(A-2)=96:?(A-1)=96:?(A)=48:?(A+1)=
96:?(A+2)=96:?(A-40)=33
 210REM***SCORE LINE****
 220FOR N=1 TO 10:NEXT
 230PRINT CHR$30;CHR$130;"FUEL ";30-INT
((TIME-T)/100)/10;TAB(11)"GALS";" ";TAB(
17);CHR$134;"SCORE ";SC;TAB(30);CHR$133;
"SHOTS ";S
 235*FX 15,1
 240REM***CHECK AIM****
 250X$=INKEY$(2):IF X$<>"" THEN 410
 260REM***CHECK FOR FIRE****
 270F%=INKEY(-1):IF F%=-1 THEN B7=?(C):
?C=42:FOR I=1 TO 100:NEXT:?C=B7:S=S+1:SO
UND &10,1,40,10 ELSE IF ST%=0 SOUND &11,
-3,SF%,-1 : SOUND &10,-11,7,-1
 280IF ST%<>0 ST%=ST%-1
 290F%=INKEY(-1):IF F%=-1 AND ?(C)<>79
THEN PROChit
```

TER PILOT

ODEL B

Tony Hannaford

Detailed Description

Lines 10–70 initialise sound and screen.
70–100 give instructions and start game.
110–160 set up display for gun.
170–210 set up enemy plane and put it on the screen.
220–240 update score and status display on screen.
250–320 firing routine check for hits.
330–380 move enemy plane about then...
390 go back round game loop.
400–510 routine to convert keyboard commands to aim direction.
520–740 PROC HIT – makes explosion with sound effects and adds to score when you hit a plane.
750–840 routine for end of game. Display statistics from game and allow another game if desired.
850–1250 routine giving comprehensive instructions for playing the game.
1260 PROC PRINT – places strings on screen with centring.
1270 re-enable cursor at end of game.

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```
300IF S>249 THEN PRINT "OUT OF AMMUNIT
ION RUN LIKE HELL FOR HOME":GOTO 800
310IF (TIME-T)/100>300 THEN PRINT "YOU
'RE OUT OF FUEL, BREAK OFF":GOTO 800
320REM***ENEMY AVOIDING ACTION****
330N=-41+(RND(3)-1)+(RND(3)-1)*40
340REM***CALCULATE NEW ENEMY POSITION*
**
350?(A-2)=B1:?(A-1)=B2:?(A)=B3:?(A+1)=
B4:?(A+2)=B5:?(A-40)=B6
360A=A+N+AIM
370IF A<31827 THEN A=A+80
380IF A>32700 THEN A=A-80
390GOTO 180
400REM***AIM CORRECTION****
410IF X$="B" AIM=-39 : PROC_sd
420IF X$="N" AIM=-40 : PROC_sd
430IF X$="M" AIM=-41 : PROC_sd
440IF X$="G" AIM=1
450IF X$="H" THEN AIM=0
460IF X$="J" THEN AIM=-1
470IF X$="T" AIM=41 : PROC_su
480IF X$="Y" AIM=40 : PROC_su
490IF X$="U" AIM=39 : PROC_su
500IF ST%=0 SOUND &11,0,SF%,-1 : SOUND
&10,-9,7,-1
510GOTO 270
520DEF PROC_su
530IF ST%<>0 ST%=ST%-1 : ENDPROC
540IF SF%<255 SF%=SF%+1
550ENDPROC
560
570DEF PROC_sd
580IF ST%<>0 ST%=ST%-1 : ENDPROC
590IF SF%>93 SF%=SF%-1
600ENDPROC
```

```
880PRINT TAB(4);CHR$(146)"j=, j5j5 p0j
=,n5 j5 j=, j=1.!"
890PRINT TAB(4);CHR$(146)"j5 zu*upz%j
5 j5 j5 juppj5 )0"
900PRINT:PRINT
910PRINT TAB(9);CHR$(146)"j7`k4k7j5 h
7`k4`k7`"
920PRINT TAB(9);CHR$(146)"j7`k4k7j5 j
5 j5 j5 "
930PRINT TAB(9);CHR$(146)"j=,.!j5j5 j
upz% j5 "
940
950PRINT:PRINT zujupp*
960XX$="YOU ARE THE PILOT OF A SPITFIR
E":PROCprint
970XX$="AHEAD OF YOU IS AN M.E.109":PR
OCprint
980XX$="HE IS TAKING AVOIDING ACTION,
AND YOU":PROCprint
990XX$="MUST TRY TO SHOOT HIM DOWN":PR
OCprint
1000XX$="YOUR GUNS ARE FIRED BY PRESSIN
G THE":PROCprint
1010 XX$=CHR$(133)+"SHIFT"+CHR$(135)+"
KEY":PROCprint
1020PRINT:XX$="YOU CAN CHANGE YOUR AIM
USING THE":PROCprint
1030XX$=CHR$(131)+"T Y U G H J B N M"+C
HR$(135)+"KEYS AS FOLLOWS ":PROCprint
1040PRINT:PRINT:XX$=" PRESS"+CHR$(134)+
"SPACE"+CHR$(135)+"TO CONTINUE":PROCprin
t
1050IF GET$=" " THEN 1070
1060GOTO 1050
1070CLS:PRINT``:XX$="THE"+CHR$+(131)+"Y
"+CHR$(135)+"KEY MAKES YOUR PLANE CLIMB
":PROCprint
1080XX$="THE"+CHR$+(131)+"N"+CHR$(135)+
"KEY MAKES YOUR PLANE DIVE ":PROCprint
1090XX$="THE"+CHR$+(131)+"G"+CHR$(135)+
"KEY TURNS YOU TO THE LEFT":PROCprint
1100XX$="THE"+CHR$+(131)+"J"+CHR$(135)+
"KEY TO THE RIGHT":PROCprint
1110XX$="THE"+CHR$(131)+"T U B M"+CHR$(
135)+"KEYS MAKE YOU TURN AS":PROCprint
1120XX$="WELL AS CLIMBING OR DIVING":PR
OCprint
1130XX$="THE"+CHR$(133)+"H"+CHR$(135)+"
KEY CENTRALISES YOUR CONTROLS":PROCprint
1140PRINT:XX$="T Y U ":PROCprint
1150PRINT:XX$="G H J ":PROCprint
1160PRINT:XX$=" B N M":PROCprint
1170PRINT:XX$="YOU CANNOT ALTER COURSE
WHILST FIRING":PROCprint
1180XX$="YOUR GUNS":PROCprint
1190PRINT:XX$="THE OBJECT OF THE GAME I
S TO SCORE":PROCprint
1200XX$="50 POINTS":PROCprint
1210PRINT:XX$="A HIT ON THE WING OR TAI
L SCORES 2":PROCprint
1220XX$="A FUSELAGE HIT SCORES 5":PROCp
rint
1230PRINT:XX$=" PRESS"+CHR$(134)+"SPACE
"+CHR$(135)+"TO START THE GAME":PROCprin
t
1240IF GET$=" " THEN ENDPROC
1250GOTO 1240
1260DEFPROCprint:PRINT TAB((40-LEN(XX$)
)/2);XX$:ENDPROC
1270VDU23,1,1;0;0;0;
```

```
610
620REM***HIT SUBROUTINE****
630DEFPROChit
640IF ?(C)=96 OR ?(C)=33 THEN II=2 : S
OUND &10,-15,4,20 : ST%=8
650IF ?(C)=48 THEN II=5 : SOUND 2,1,12
0,24
660SC=SC+II
670FOR I=1 TO II
680?(C-39)=42:?(C-41)=42:?(C+41)=42:?(
C+39)=42
690IF SC>49 THEN 760
700FOR J=1 TO 25:NEXT
710?(C-39)=32:?(C-41)=32:?(C+41)=32:?(
C+39)=32
720FOR J=1 TO 10:NEXT
730NEXT
740ENDPROC
750REM***FINAL DISPLAY****
760T1=INT((TIME-T)/100)
770PRINT TAB(17)"SCORE ";SC
780PRINT "ENEMY PLANE DESTROYED IN ";T
1;" SECONDS"
790PRINT "USING ";S;" ROUNDS OF AMMUNI
TION"
800PRINT "TO PLAY AGAIN PRESS SPACE "
810PRINT "TO STOP PRESS 0 "
820IF GET$="0" THEN 1270
830IF GET$=" " THEN 90
840GOTO 820
850REM***INSTRUCTIONS****
860DEFPROCinstruct
865 REM The ` sign in the following li
neS represents the computers POUND sign.
870CLS:PRINT ``;TAB(4);CHR$(146)"j7`!k
7h7`k4j5 j5`k7`j7``j7`k4"
```

This program is from the book 'The Best of PCW: Software for the BBC Micro' published by *Personal Computer World* and Century Communications.

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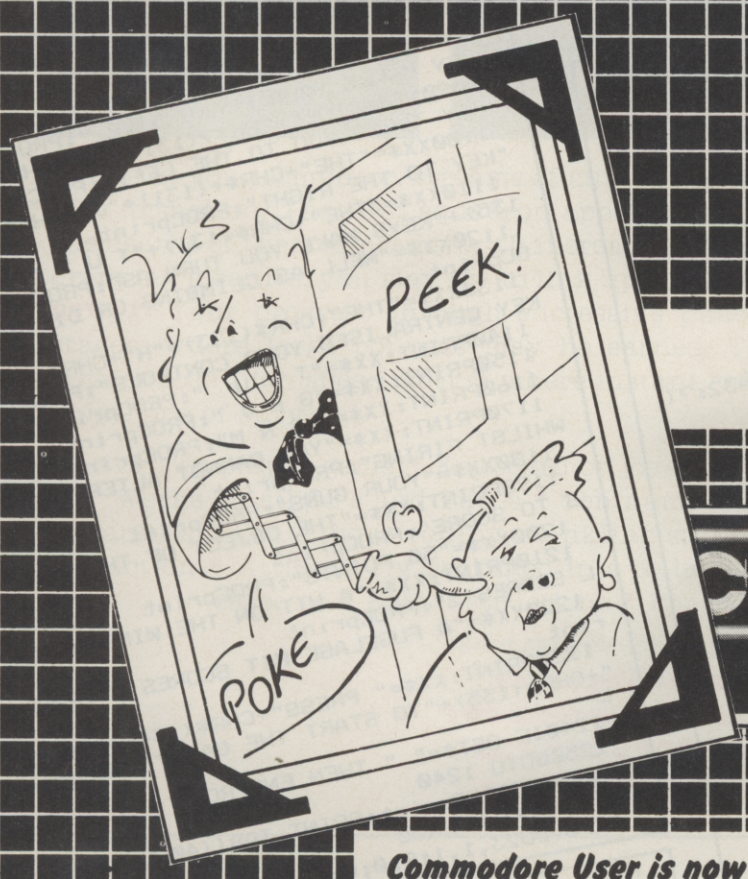

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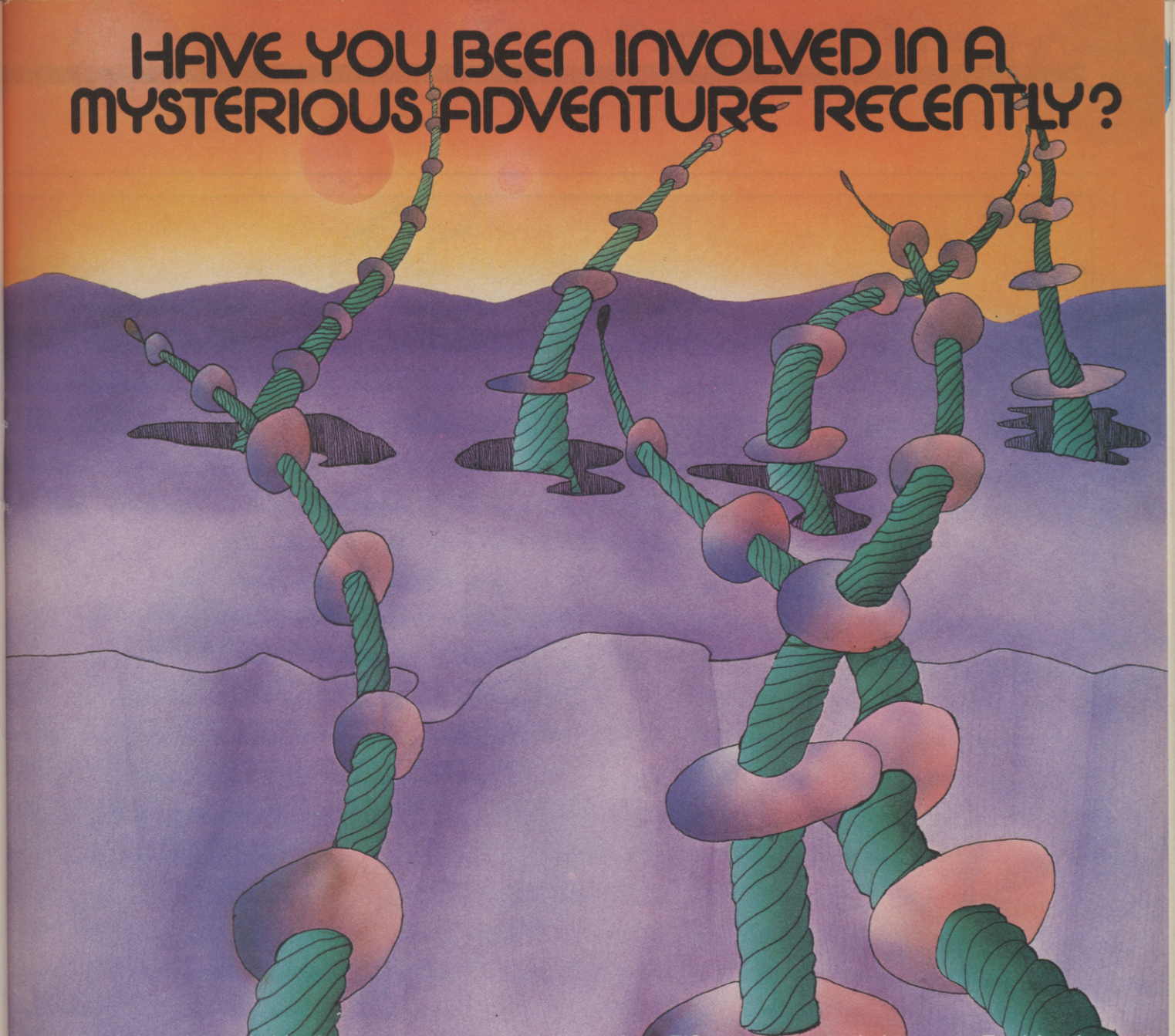

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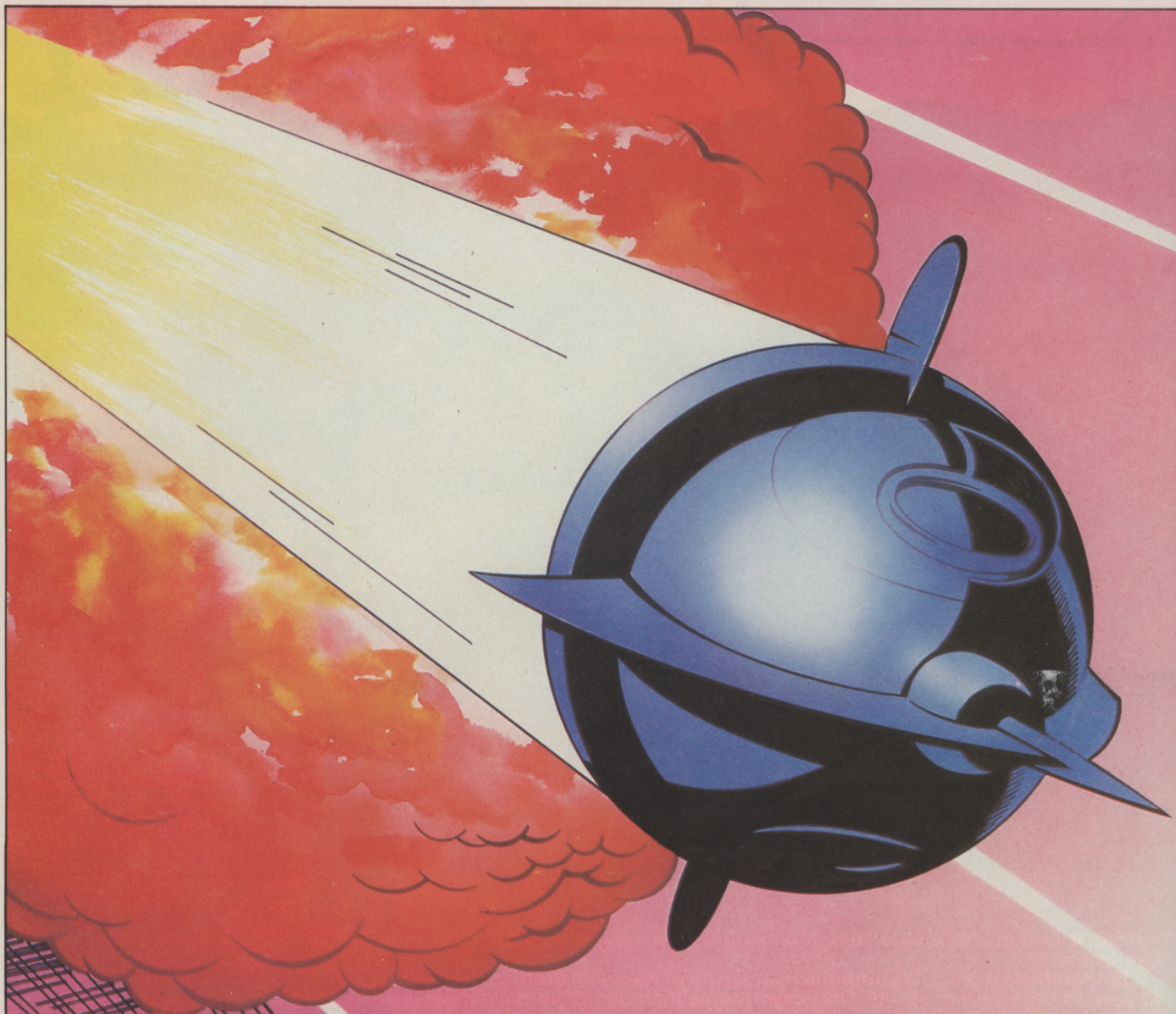

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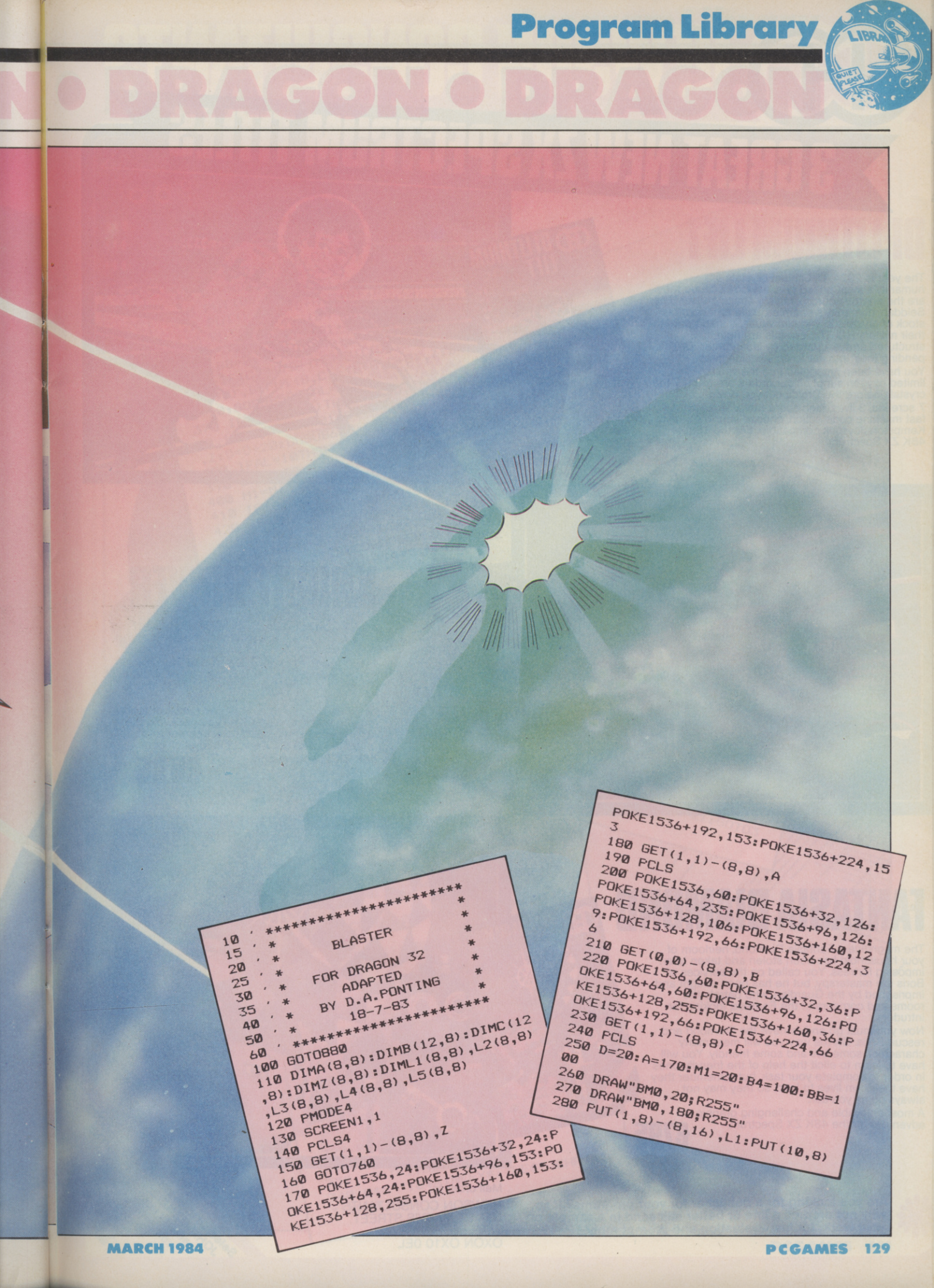
Your 'score' is shown at the top of the screen and your overworked photon beam is replenished when your score hits 5000 hits.

DETAILED DESCRIPTION

Lines 10-100 Title sequence and instructions.
110 Sets up arrays.
120-130 Selects graphics page.
150-220 Prints display.
250 Sets variables.
260-270 Draws border lines ('ground' and 'sky').
280 Places aliens on screen.
290-300 Randomises the starting points for aliens' appearance on screen.
310-600 Check keyboard for pressing of the control keys, including, at Line 520, the routine for moving your missile base. Also fires 'missiles'.
610-660 Scoring routine.
670 Clears screen.
680-710 Checks and prints score, adjusts Hi Score.
720-740 Repeat routine.
880-990 Prints instructions (including at Line 960, the flashing 'Warning' signal).




```
10  '  **********************
15  '  *                    *
20  '  *      BLASTER       *
25  '  *                    *
30  '  *   FOR DRAGON 32    *
35  '  *     ADAPTED        *
40  '  *  BY D.A.PONTING    *
50  '  *    18-7-83         *
60  '  **********************
100 GOTO880
110 DIMA(8,8):DIMB(12,8):DIMC(12
,8):DIMZ(8,8):DIML1(8,8),L2(8,8)
,L3(8,8),L4(8,8),L5(8,8)
120 PMODE4
130 SCREEN1,1
140 PCLS4
150 GET(1,1)-(8,8),Z
160 GOTO760
170 POKE1536,24:POKE1536+32,24:P
OKE1536+64,24:POKE1536+96,153:PO
KE1536+128,255:POKE1536+160,153:
POKE1536+192,153:POKE1536+224,15
3
180 GET(1,1)-(8,8),A
190 PCLS
200 POKE1536,60:POKE1536+32,126:
POKE1536+64,235:POKE1536+96,126:
POKE1536+128,106:POKE1536+160,12
9:POKE1536+192,66:POKE1536+224,3
6
210 GET(0,0)-(8,8),B
220 POKE1536,60:POKE1536+32,36:P
OKE1536+64,60:POKE1536+96,126:PO
KE1536+128,255:POKE1536+160,36:P
OKE1536+192,66:POKE1536+224,66
230 GET(1,1)-(8,8),C
240 PCLS
250 D=20:A=170:M1=20:B4=100:BB=1
00
260 DRAW"BM0,20;R255"
270 DRAW"BM0,180;R255"
280 PUT(1,8)-(8,16),L1:PUT(10,8)
```

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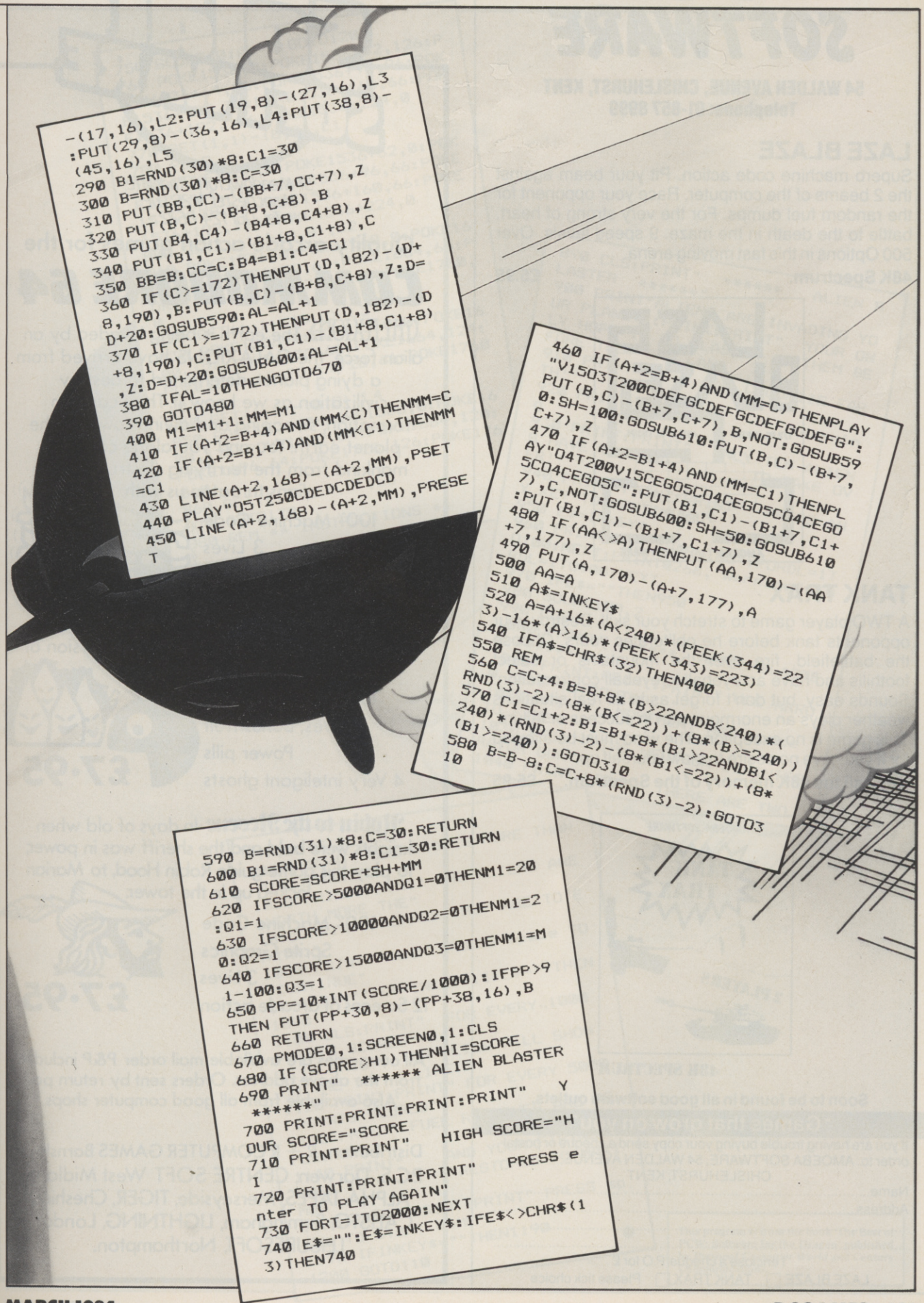

```
-(17,16),L2:PUT(19,8)-(27,16),L3
:PUT(29,8)-(36,16),L4:PUT(38,8)-
(45,16),L5
290 B1=RND(30)*8:C1=30
300 B=RND(30)*8:C=30
310 PUT(BB,CC)-(BB+7,CC+7),Z
320 PUT(B,C)-(B+8,C+8),B
330 PUT(B4,C4)-(B4+8,C4+8),Z
340 PUT(B1,C1)-(B1+8,C1+8),C
350 BB=B:CC=C:B4=B1:C4=C1
360 IF(C>=172)THENPUT(D,182)-(D+
8,190),B:PUT(B,C)-(B+8,C+8),Z:D=
D+20:GOSUB590:AL=AL+1
370 IF(C1>=172)THENPUT(D,182)-(D
+8,190),C:PUT(B1,C1)-(B1+8,C1+8)
,Z:D=D+20:GOSUB600:AL=AL+1
380 IFAL=10THENGOTO670
390 GOTO480
400 M1=M1+1:MM=M1
410 IF(A+2=B+4)AND(MM<C)THENMM=C
420 IF(A+2=B1+4)AND(MM<C1)THENMM
=C1
430 LINE(A+2,168)-(A+2,MM),PSET
440 PLAY"O5T250CDEDCDEDCD
450 LINE(A+2,168)-(A+2,MM),PRESE
T
```

```
460 IF(A+2=B+4)AND(MM=C)THENPLAY
"V1503T200CDEFGCDEFGCDEFGCDEFG":
PUT(B,C)-(B+7,C+7),B,NOT:GOSUB59
0:SH=100:GOSUB610:PUT(B,C)-(B+7,
C+7),Z
470 IF(A+2=B1+4)AND(MM=C1)THENPL
AY"O4T200V15CEGO5CO4CEGO5CO4CEGO
5CO4CEGO5C":PUT(B1,C1)-(B1+7,C1+
7),C,NOT:GOSUB600:SH=50:GOSUB610
:PUT(B1,C1)-(B1+7,C1+7),Z
480 IF(AA<>A)THENPUT(AA,170)-(AA
+7,177),Z
490 PUT(A,170)-(A+7,177),A
500 AA=A
510 A$=INKEY$
520 A=A+16*(A<240)*(PEEK(344)=22
3)-16*(A>16)*(PEEK(343)=223)
540 IFA$=CHR$(32)THEN400
550 REM
560 C=C+4:B=B+8*(B>22ANDB<240)*(
RND(3)-2)-(8*(B<=22))+(8*(B>=240))
570 C1=C1+2:B1=B1+8*(B1>22ANDB1<
240)*(RND(3)-2)-(8*(B1<=22))+(8*
(B1>=240)):GOTO310
580 B=B-8:C=C+8*(RND(3)-2):GOTO3
10
```

```
590 B=RND(31)*8:C=30:RETURN
600 B1=RND(31)*8:C1=30:RETURN
610 SCORE=SCORE+SH+MM
620 IFSCORE>5000ANDQ1=0THENM1=20
:Q1=1
630 IFSCORE>10000ANDQ2=0THENM1=2
0:Q2=1
640 IFSCORE>15000ANDQ3=0THENM1=M
1-100:Q3=1
650 PP=10*INT(SCORE/1000):IFPP>9
THEN PUT(PP+30,8)-(PP+38,16),B
660 RETURN
670 PMODE0,1:SCREEN0,1:CLS
680 IF(SCORE>HI)THENHI=SCORE
690 PRINT"  ****** ALIEN BLASTER
******"
700 PRINT:PRINT:PRINT"   Y
OUR SCORE="SCORE
710 PRINT:PRINT"   HIGH SCORE="H
I
720 PRINT:PRINT:PRINT"   PRESS e
nter TO PLAY AGAIN"
730 FORT=1TO2000:NEXT
740 E$="":E$=INKEY$:IFE$<>CHR$(1
3)THEN740
```

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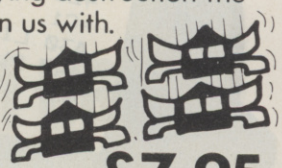

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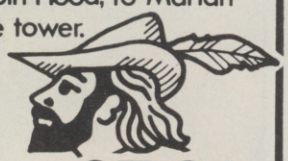

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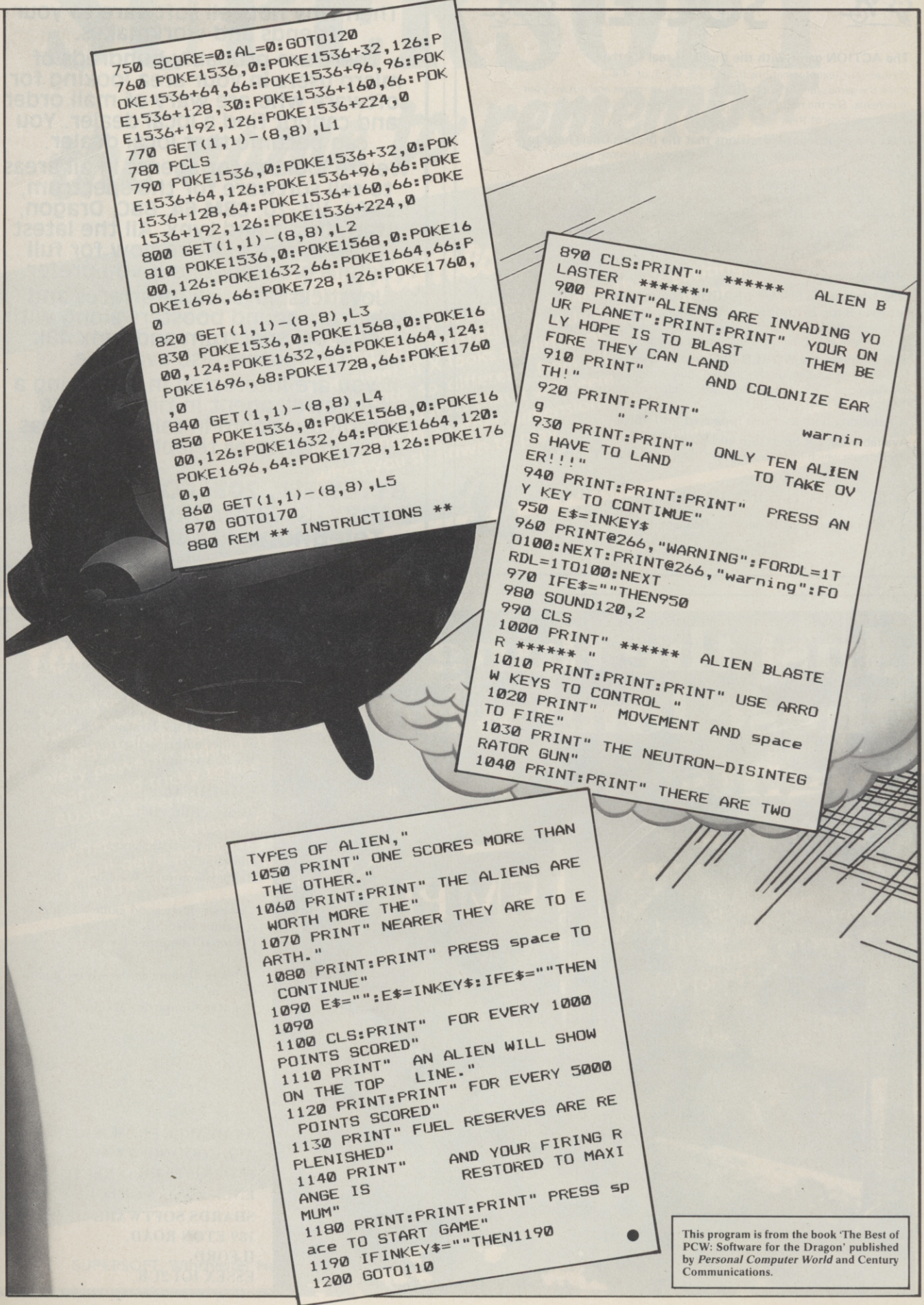
• DRAGON • DRAGON



```
750 SCORE=0:AL=0:GOTO120
760 POKE1536,0:POKE1536+32,126:P
OKE1536+64,66:POKE1536+96,96:POK
E1536+128,30:POKE1536+160,66:POK
E1536+192,126:POKE1536+224,0
770 GET(1,1)-(8,8),L1
780 PCLS
790 POKE1536,0:POKE1536+32,0:POK
E1536+64,126:POKE1536+96,66:POKE
1536+128,64:POKE1536+160,66:POKE
1536+192,126:POKE1536+224,0
800 GET(1,1)-(8,8),L2
810 POKE1536,0:POKE1568,0:POKE16
00,126:POKE1632,66:POKE1664,66:P
OKE1696,66:POKE728,126:POKE1760,
0
820 GET(1,1)-(8,8),L3
830 POKE1536,0:POKE1568,0:POKE16
00,124:POKE1632,66:POKE1664,124:
POKE1696,68:POKE1728,66:POKE1760
,0
840 GET(1,1)-(8,8),L4
850 POKE1536,0:POKE1568,0:POKE16
00,126:POKE1632,64:POKE1664,120:
POKE1696,64:POKE1728,126:POKE176
0,0
860 GET(1,1)-(8,8),L5
870 GOTO170
880 REM ** INSTRUCTIONS **
```

```
890 CLS:PRINT"  ******    ALIEN B
LASTER  ******"
900 PRINT"ALIENS ARE INVADING YO
UR PLANET":PRINT:PRINT"  YOUR ON
LY HOPE IS TO BLAST      THEM BE
FORE THEY CAN LAND
910 PRINT"               AND COLONIZE EAR
TH!"
920 PRINT:PRINT"
g          "
930 PRINT:PRINT"  ONLY TEN ALIEN
S HAVE TO LAND
ER!!!"
940 PRINT:PRINT:PRINT"  PRESS AN
Y KEY TO CONTINUE"
950 E$=INKEY$
960 PRINT@266,"WARNING":FORDL=1T
0100:NEXT:PRINT@266,"warning":FO
RDL=1TO100:NEXT
970 IFE$=""THEN950
980 SOUND120,2
990 CLS
1000 PRINT"  ******  ALIEN BLASTE
R ******  "
1010 PRINT:PRINT:PRINT" USE ARRO
W KEYS TO CONTROL "
1020 PRINT"  MOVEMENT AND space
TO FIRE"
1030 PRINT" THE NEUTRON-DISINTEG
RATOR GUN"
1040 PRINT:PRINT" THERE ARE TWO
```

```
TYPES OF ALIEN,"
1050 PRINT" ONE SCORES MORE THAN
 THE OTHER."
1060 PRINT:PRINT" THE ALIENS ARE
 WORTH MORE THE"
1070 PRINT" NEARER THEY ARE TO E
ARTH."
1080 PRINT:PRINT" PRESS space TO
 CONTINUE"
1090 E$="":E$=INKEY$:IFE$=""THEN
1090
1100 CLS:PRINT"  FOR EVERY 1000
POINTS SCORED"
1110 PRINT"  AN ALIEN WILL SHOW
ON THE TOP  LINE."
1120 PRINT:PRINT" FOR EVERY 5000
 POINTS SCORED"
1130 PRINT" FUEL RESERVES ARE RE
PLENISHED"
1140 PRINT"    AND YOUR FIRING R
ANGE IS        RESTORED TO MAXI
MUM"
1180 PRINT:PRINT:PRINT" PRESS sp
ace TO START GAME"
1190 IFINKEY$=""THEN1190
1200 GOTO110
```

This program is from the book 'The Best of PCW: Software for the Dragon' published by *Personal Computer World* and Century Communications.

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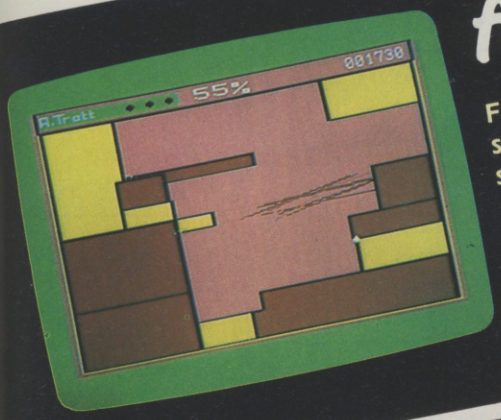

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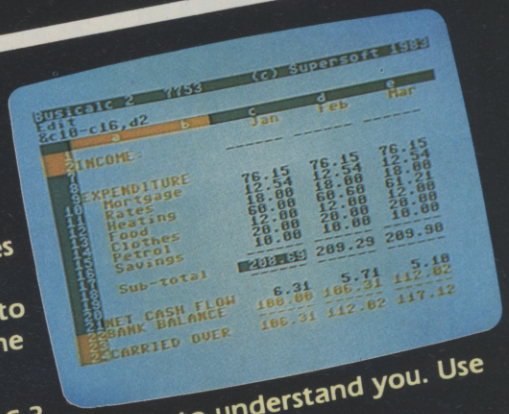

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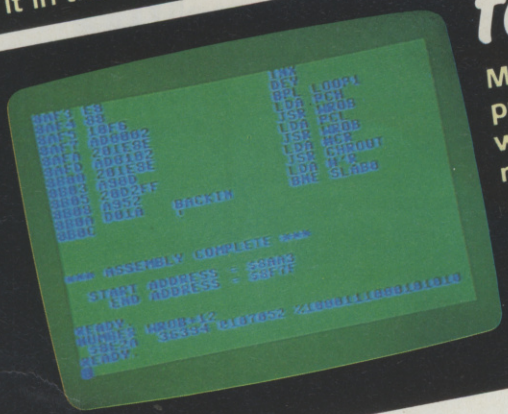

MIKRO is a full 6502/6510 ASSEMBLER with the power that professional programmers need, yet so simple to use that we recommend it to beginners! The MIKRO cartridge has many other facilities including editing commands and a machine language monitor, all for £57.50.

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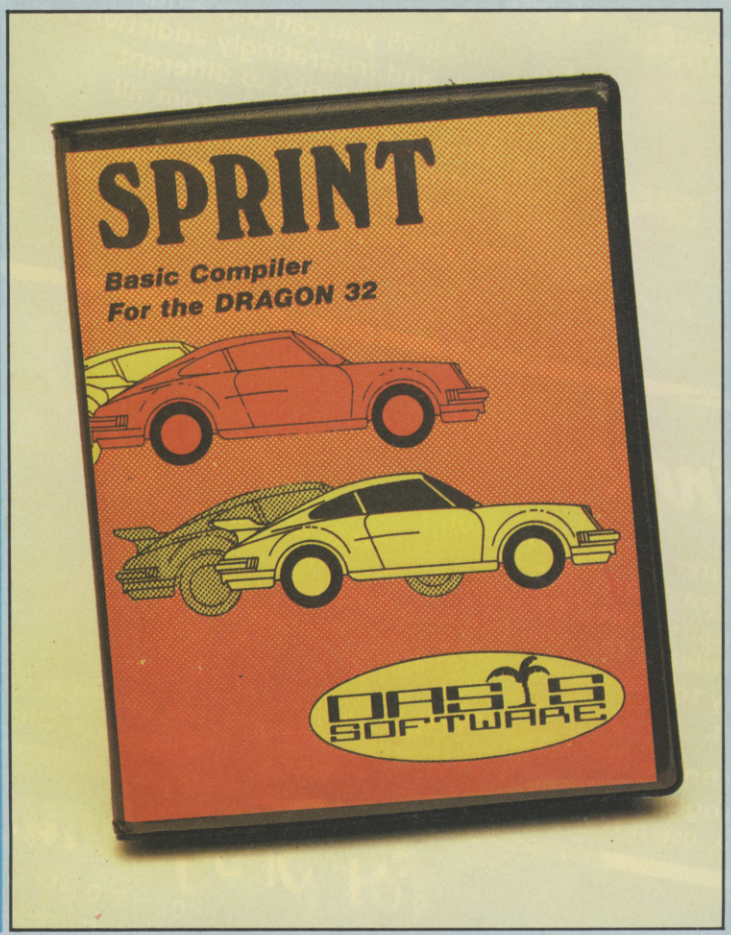

SPRINT BASIC COMPILER
by Dr. David Gray FOR THE DRAGON 32

Sprint compiles a subset of standard Dragon BASIC which covers arrays, strings, for-next loops, in fact virtually everything except floating point arithmetic and associated commands. All arithmetic is integer and the Dragon sound and graphic commands are fully supported.
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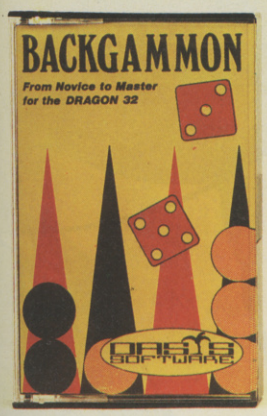

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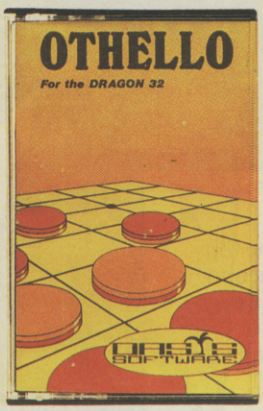

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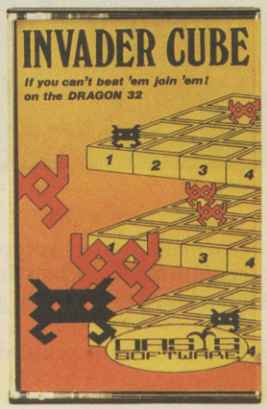

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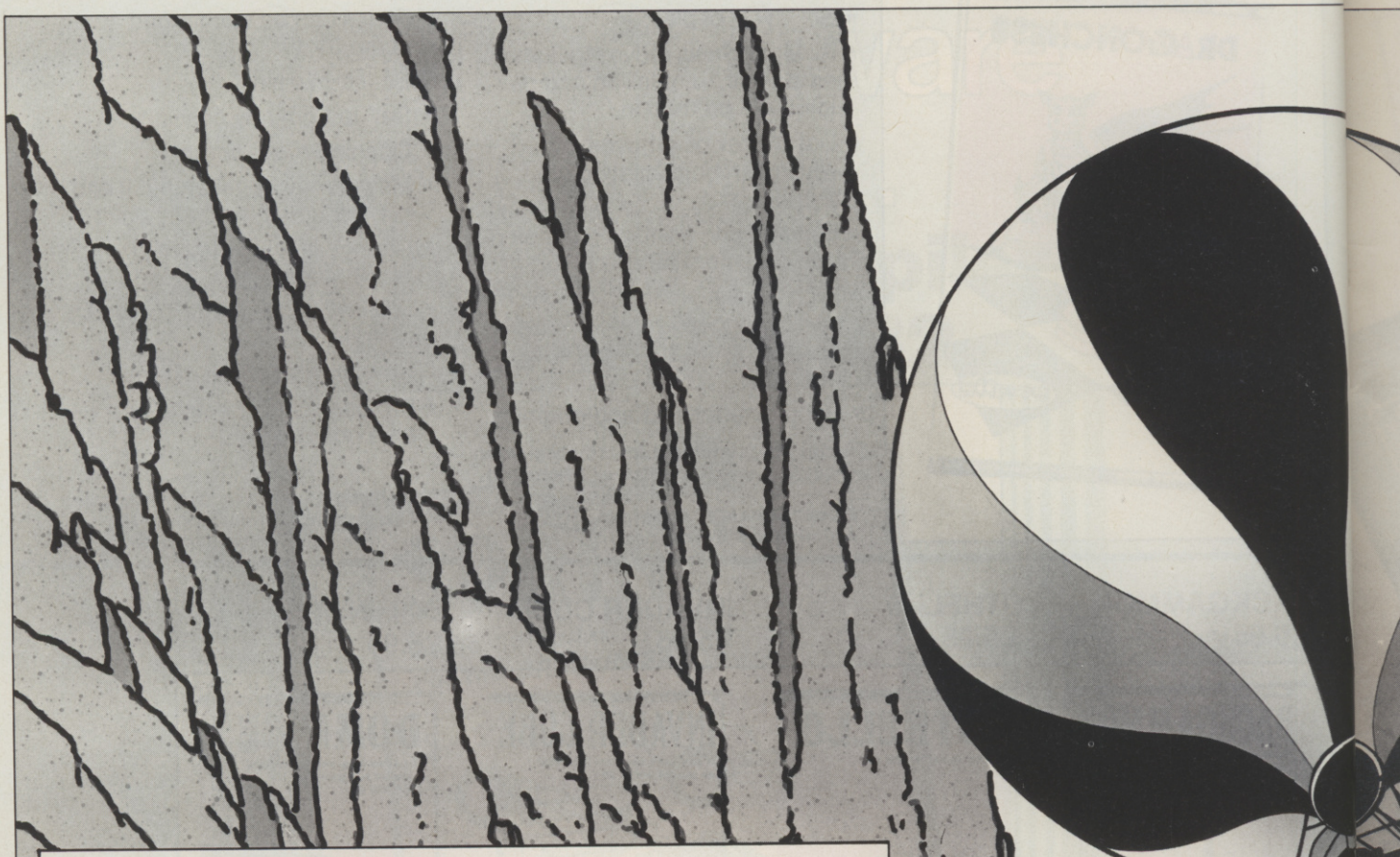


GENERAL DESCRIPTION

In this game you must guide a balloon around a maze, trying to reach the top left-hand corner of the screen. There are 2 separate mazes. When the second maze is completed, an earthquake effect is introduced to make the game even harder.
You could replace one of the given mazes with one of your own and challenge a friend to complete it.

BALLOON

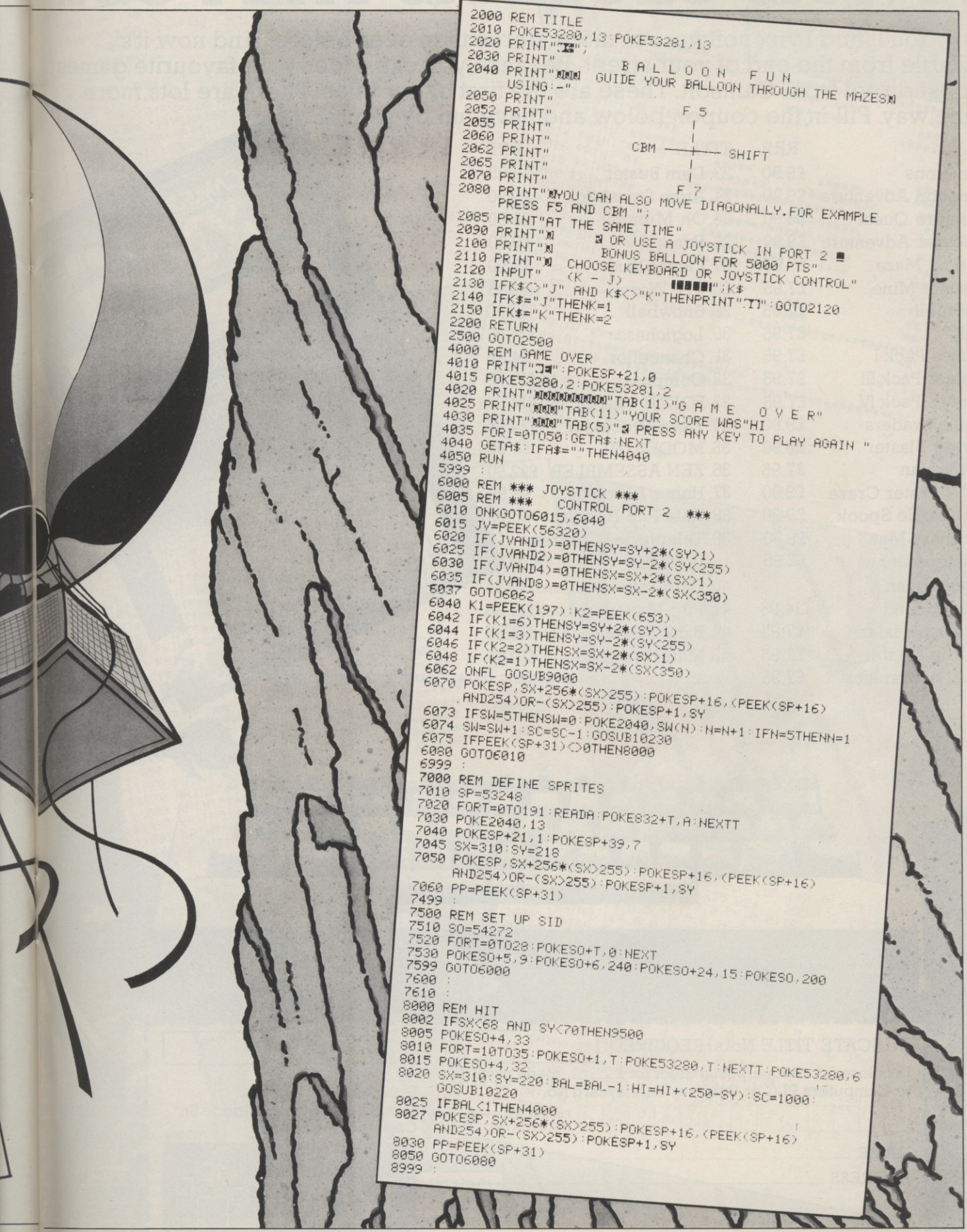
COMMODORE 64

DETAILED DESCRIPTION

Lines 1 – 50 Setup variables and arrays.
1062 – 1070 Print bonus in top left corner.
2000 – 2120 Print title screen.
2130 – 2200 Joystick or Keyboard?
4000 – 4050 Game over.
6000 – 6080 Read Joystick or Keyboard and move balloon accordingly.
7000 – 7060 Read data into sprite.
7500 – 7600 Set up SID.
8000 – 8050 Explosion if collision.
9000 – 9100 Earthquake effect for higher levels.
9500 – 9620 Screen finished, give bonus.
10000 – 10095 1st Screen.
10200 – 10290 Update score line.
11000 – 11100 2nd screen.
20000 – 20107 Sprite data.

```
1 REM  ********************************
2 REM  *                              *
3 REM  *    BALLOON                   *
4 REM  *                              *
5 REM  * COMPUTER     : COMMODORE 64  *
6 REM  * LANGUAGE     : BASIC 2       *
7 REM  *  AUTHOR      : A.ROE         *
8 REM  * CONVERSION   : DAVE PONTING  *
9 REM  *   FROM       : BBC B         *
10 REM * PROG.TYPE    : MAZE GAME     *
11 REM *  DATE        : 6-11-83       *
14 REM *                              *
15 REM ********************************
17 GOSUB2000
20 POKE53280,6:POKE53281,6:PRINT"■";:HS=0:BAL=3:QQ=1
30 SC=1000
40 RESTORE:ONQQGOSUB10000,11000
50 SW(1)=14:SW(2)=13:SW(3)=15:SW(4)=13:DX=1:DY=2:N=2
1062 PRINT"[illegible]■"
1063 PRINT"[illegible]1000■"
1064 PRINT"[illegible]■"
1070 GOTO7000
```

RE 64 • COMMODORE 64



```
2000 REM TITLE
2010 POKE53280,13:POKE53281,13
2020 PRINT"■";
2030 PRINT"
2040 PRINT"■■■  GUIDE YOUR BALLOON THROUGH THE MAZES■
     USING:-"
2050 PRINT"
2052 PRINT"                F 5
2055 PRINT"                 |
2060 PRINT"                 |
2062 PRINT"           CBM ──┼── SHIFT
2065 PRINT"                 |
2070 PRINT"                 |
2080 PRINT"■YOU CAN ALSO MOVE DIAGONALLY.FOR EXAMPLE
     PRESS F5 AND CBM ";
2085 PRINT"AT THE SAME TIME"
2090 PRINT"■      ■ OR USE A JOYSTICK IN PORT 2 ■
2100 PRINT"■        BONUS BALLOON FOR 5000 PTS"
2110 PRINT"■  CHOOSE KEYBOARD OR JOYSTICK CONTROL"
2120 INPUT"    (K - J)      ■■■■■";K$
2130 IFK$<>"J" AND K$<>"K"THENPRINT"■■";GOTO2120
2140 IFK$="J"THENK=1
2150 IFK$="K"THENK=2
2200 RETURN
2500 GOTO2500
4000 REM GAME OVER
4010 PRINT"■■":POKESP+21,0
4015 POKE53280,2:POKE53281,2
4020 PRINT"■■■■■■■■■■"TAB(11)"G A M E   O V E R"
4025 PRINT"■■■"TAB(11)"YOUR SCORE WAS"HI
4030 PRINT"■■■"TAB(5)"■ PRESS ANY KEY TO PLAY AGAIN "
4035 FORI=0TO50:GETA$:NEXT
4040 GETA$:IFA$=""THEN4040
4050 RUN
5999 :
6000 REM *** JOYSTICK ***
6005 REM ***   CONTROL PORT 2  ***
6010 ONKGOTO6015,6040
6015 JV=PEEK(56320)
6020 IF(JVAND1)=0THENSY=SY+2*(SY>1)
6025 IF(JVAND2)=0THENSY=SY-2*(SY<255)
6030 IF(JVAND4)=0THENSX=SX+2*(SX>1)
6035 IF(JVAND8)=0THENSX=SX-2*(SX<350)
6037 GOTO6062
6040 K1=PEEK(197):K2=PEEK(653)
6042 IF(K1=6)THENSY=SY+2*(SY>1)
6044 IF(K1=3)THENSY=SY-2*(SY<255)
6046 IF(K2=2)THENSX=SX+2*(SX>1)
6048 IF(K2=1)THENSX=SX-2*(SX<350)
6062 ONFL GOSUB9000
6070 POKESP,SX+256*(SX>255):POKESP+16,(PEEK(SP+16)
     AND254)OR-(SX>255):POKESP+1,SY
6073 IFSW=5THENSW=0:POKE2040,SW(N):N=N+1:IFN=5THENN=1
6074 SW=SW+1:SC=SC-1:GOSUB10230
6075 IFPEEK(SP+31)<>0THEN8000
6080 GOTO6010
6999 :
7000 REM DEFINE SPRITES
7010 SP=53248
7020 FORT=0TO191:READA:POKE832+T,A:NEXTT
7030 POKE2040,13
7040 POKESP+21,1:POKESP+39,7
7045 SX=310:SY=218
7050 POKESP,SX+256*(SX>255):POKESP+16,(PEEK(SP+16)
     AND254)OR-(SX>255):POKESP+1,SY
7060 PP=PEEK(SP+31)
7499 :
7500 REM SET UP SID
7510 SO=54272
7520 FORT=0TO28:POKESO+T,0:NEXT
7530 POKESO+5,9:POKESO+6,240:POKESO+24,15:POKESO,200
7599 GOTO6000
7600 :
7610 :
8000 REM HIT
8002 IFSX<68 AND SY<70THEN9500
8005 POKESO+4,33
8010 FORT=10TO35:POKESO+1,T:POKE53280,T:NEXTT:POKE53280,6
8015 POKESO+4,32
8020 SX=310:SY=220:BAL=BAL-1:HI=HI+(250-SY):SC=1000:
     GOSUB10220
8025 IFBAL<1THEN4000
8027 POKESP,SX+256*(SX>255):POKESP+16,(PEEK(SP+16)
     AND254)OR-(SX>255):POKESP+1,SY
8030 PP=PEEK(SP+31)
8050 GOTO6080
8999 :
```

Richard Evans

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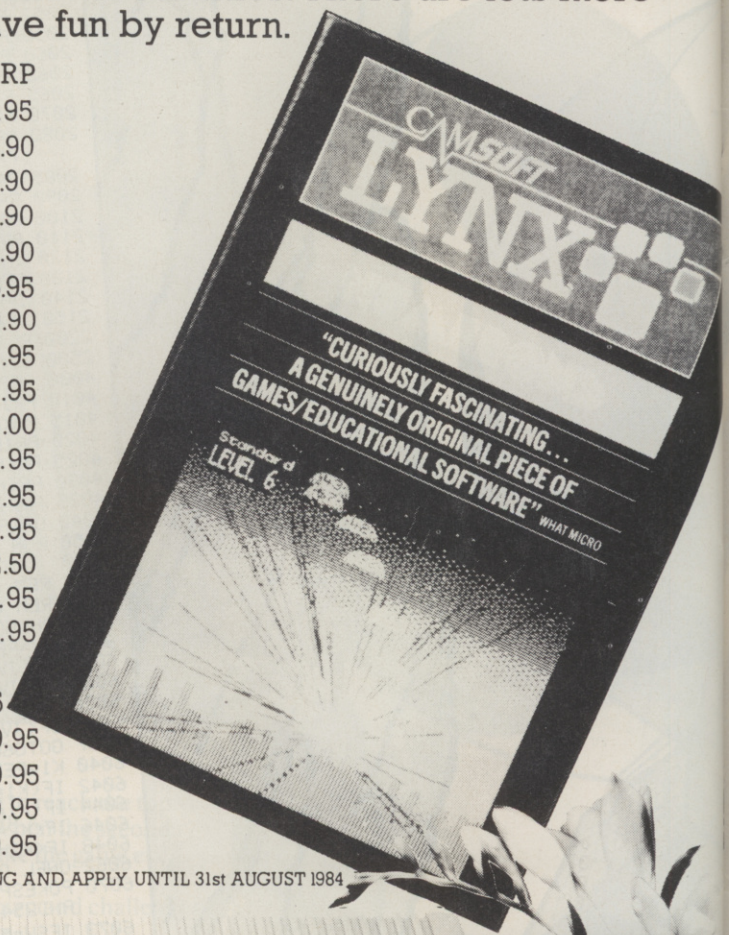

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```
9000 REM EARTHQUAKE
9010 POKE53270,(PEEK(53270)AND248)+X:X=X+DX:IFX=7 OR X=0
     THEN DX=-DX
9100 RETURN
9499 :
9500 REM BONUS ! .START NEW GAME
9510 IFSX>40 AND SY>56THEN6080
9512 SX=310:SY=220:HI=HI+(1000-SC):SC=1000
9513 IFBAL<1THEN4000
9515 PP=PEEK(SP+31)
9520 HI=HI+1000:QQ=QQ+1
9530 IFHI>5000 AND IH=0THEN BAL=BAL+1:IH=1
9540 IFQQ>2THENQQ=1:FL=1
9550 GOSUB10220
9555 POKESO+4,17:FORNN=1TO10
9560 FORT=20TO40STEP2:POKESO+1,T:NEXTT
9570 FORT=40TO20STEP-2:POKESO+1,T:NEXTT
9580 NEXTNN:POKESO+4,16
9614 POKESP,SX+256*(SX>255):POKESP+16,(PEEK(SP+16)
     AND254)OR-(SX>255):POKESP+1,SY
9615 PP=PEEK(SP+31)
9620 GOTO40
9999 :
```

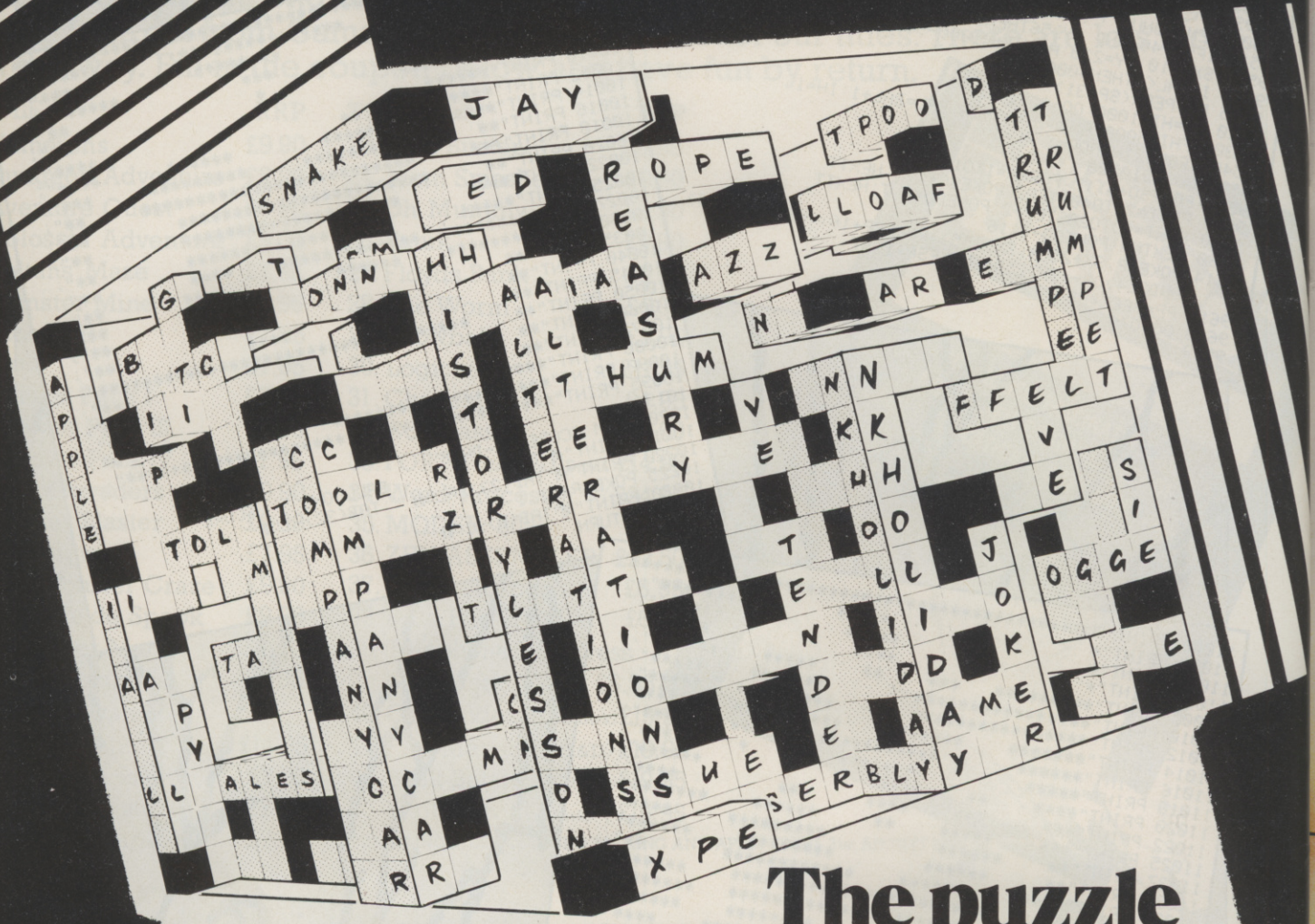
```
10000 PRINT"▮****************************************";
10002 PRINT"**         ******************          ****";
10004 PRINT"**              ********              *****";
10006 PRINT"**               ***                *******";
10008 PRINT"********          *                      **";
10010 PRINT"******       **                          **";
10012 PRINT"******      *****                      ****";
10014 PRINT"*****     *********       ******       ****";
10016 PRINT"**   ************************           ***";
10018 PRINT"***    **********************            **";
10020 PRINT"**      ********************             **";
10022 PRINT"****  ***************************        **";
10025 PRINT"*****    ******              ****        **";
10027 PRINT"******                         **        **";
10030 PRINT"*******                                  **";
10035 PRINT"**                                       **";
10040 PRINT"**                        **             **";
10045 PRINT"**    *******************************    **";
10050 PRINT"**                      ****             **";
10060 PRINT"**                                        *";
10070 PRINT"**                                        *";
10080 PRINT"****                                      *";
10090 PRINT"*****************************************";
10095 PRINT"****************************************";
10199 :
10200 REM SCORE UP-DATE
10210 PRINT"▮ TIME              BALLOONS        SCORE"
10220 PRINT"▮"TAB(23)BAL"▮ ";TAB(32)HI"▮ "
10225 POKESP+21,1
10230 PRINT"▮"TAB(6)SC"▮ "
10290 RETURN
10999 :
```

```
11000 PRINT"▮▮▮****************************************";
11002 PRINT"*           *         *****        ********";
11004 PRINT"*                     *****          ******";
11006 PRINT"*                     ****    *****   *****";
11008 PRINT"*********     ***      **   *******  ******";
11010 PRINT"****************         *********    *****";
11012 PRINT"****************        **********    *****";
11014 PRINT"*******       *******      ****        ****";
11016 PRINT"******     ***********        *         ***";
11018 PRINT"*****       *********                   ***";
11020 PRINT"****    **    *****      **          ******";
11022 PRINT"***    ***     ****    ******          ****";
11025 PRINT"***   *****     **   *********      *******";
11027 PRINT"**   ******         **********         ****";
11030 PRINT"**    ******     *************       ******";
11035 PRINT"****     ******  ***************         **";
11040 PRINT"**   *************************       ******";
11045 PRINT"***   ****************   *********  *******";
11050 PRINT"**    **********        *********    ******";
11060 PRINT"*     *******                          ****";
11070 PRINT"***                 ***                   *";
11080 PRINT"*****          *********                  *";
11090 PRINT"******************************************";
11095 PRINT"*********************************************▮";
11100 GOSUB10200:RETURN
19999 :
```

```
20000 REM *** SPRITE BALLOON 1 ***
20002 DATA0,254,0,3,255,128,7,255,192,15,255,224
20003 DATA15,255,224,15,255,224,7,255,192,3,255,128
20004 DATA0,254,0,0,56,0,0,56,0,0,16,0
20005 DATA0,16,0,0,16,0,0,16,0,0,16,0
20006 DATA0,124,0,0,124,0,0,124,0,0,0,0
20007 DATA0,0,0,0
20020 REM *** SPRITE BALLOON 2 ***
20022 DATA0,254,0,3,255,128,7,255,192,15,255,224
20023 DATA15,255,224,15,255,224,7,255,192,3,255,128
20024 DATA0,254,0,0,56,0,0,56,0,0,16,0
20025 DATA 0, 60, 0, 0, 16, 0, 0, 32, 0, 0, 64, 0
20026 DATA 12, 128, 0, 63, 0, 0, 31, 128, 0, 15, 192, 0
20027 DATA 7, 128, 0, 0
20100 REM *** SPRITE BALLOON 3 ***
20102 DATA0,254,0,3,255,128,7,255,192,15,255,224
20103 DATA15,255,224,15,255,224,7,255,192,3,255,128
20104 DATA0,254,0,0,56,0,0,56,0,0,16,0
20105 DATA 0, 60, 0, 0, 8, 0, 0, 4, 0, 0, 2, 0
20106 DATA 0, 1, 96, 0, 0, 240, 0, 3, 248, 0, 3, 240
20107 DATA 0, 1, 224, 0
```

This program is from the forthcoming book 'The Best of PCW: Software for the Commodore 64' published by *Personal Computer World* and Century Communications. It will be available in May.

The ultimate Crossword



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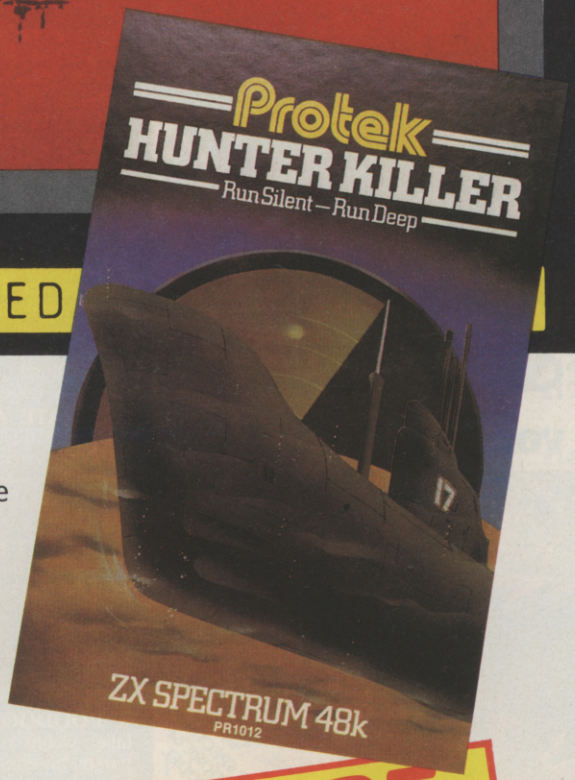

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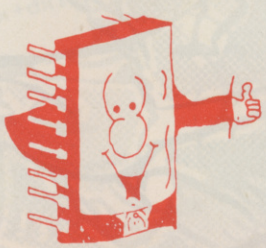

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CHEESE

BY LEON GOODFRIEND

Original program by Paul Bradshaw

Your role in this game is of a cat guarding a large piece of cheese from hordes of hungry mice. You must prevent the mice from nibbling away at the cheese by intercepting their paths and catching them in your jaws. You gain points for how quickly you catch the mice and when all of the cheese has been nibbled the game is over and a pleasing and colourful display follows. Your score and best score so far are displayed throughout the game.

DETAILED DESCRIPTION

Lines 10-220 Initialisation and user instructions.
230-295 Set up the screen display, draw the cheese and mark the boundaries of the screen.
300-360 Display the cat and the mouse.
380 Update the score and display the best score.
400-480 Check and update new position of mouse.
490 Check to see if all of the cheese has been eaten.
500 Check to see if the mouse has been caught in the cat's jaws.
510-520 User input to move cat.
530-610 Update the position of the cat.
8000-8080 Mouse has been captured routine.
9000-9470 Game over display.
9360-9470 Congratulatory message if new high score achieved.
9900-9940 Another go? routine.

```
  2 REM
  3 REM CHEESE                    ZX Spectrum
  4 REM
 10 INK 7: PAPER 1: FLASH 0: BR
IGHT 0: OVER 0: INVERSE 0: BORDE
R 0: CLS
 20 PRINT AT 3,13;"CHEESE"
 30 PLOT 100,140: DRAW 56,0: DR
AW 0,14: DRAW -57,0: DRAW 0,-14
 40 LET hs=0
 50 FOR a=0 TO 15: READ b: POKE
USR "a"+a,b: NEXT a
 60 DATA 66,126,66,165,129,153,
231,24,4,2,4,14,55,127,15,30
 70 PRINT '''"The object of the
game is to"
```

Tony Hannaford

SPECTRUM

```
 75 REM b in line 80 is graphic
b
 80 PRINT "prevent the mice b f
rom reaching"
 90 PRINT "the cheese in the ce
ntre of the"
 100 PRINT "screen."
 105 REM a in line 110 is graphi
c a
 110 PRINT "You control a cat a
with the"
 120 PRINT "following keys:-"
 130 PRINT TAB 6;"A - up     Z -
down"
 140 PRINT TAB 6;"N - left   M -
right"
 150 PRINT "Catch a mouse by int
ercepting"
 160 PRINT "its path when it wil
l run into"
 170 PRINT "your jaws. The quick
er you catch"
 180 PRINT "a mouse the more poi
nts you"
 190 PRINT "score. The game ends
when all"
 200 PRINT "the cheese is gone."
 210 PRINT '"Press any key to pl
ay";
 220 PAUSE 0
 230 CLS
 240 FOR a=10 TO 12: PRINT PAPER
 6;AT a,13;"                ": NEXT a
 250 FOR a=1 TO 10
 260 CIRCLE FN r(40)+108,FN r(16
)+74,FN r(2)+1
```

```
 270 NEXT a
 280 LET cc=18: LET sc=0
 285 REM S in lines 290 & 295 ar
e the black squares you get by p
ressing CAPS SHIFT 8 in graphics
mode.
 290 FOR y=0 TO 21: PRINT INK 0;
AT y,0;"SS";AT y,30;"SS";: NEXT
y
 295 FOR x=2 TO 29: PRINT INK 0;
AT 0,x;"S";AT 1,x;"S";AT 20,x;"S
";AT 21,x;"S";: NEXT x
 300 LET cx=FN r(28)+1: LET cy=F
N r(18)+1: IF ATTR (cy,cx)<>15 T
HEN GO TO 300
 310 PRINT AT cy,cx;"a"; REM a i
s graphic a
 320 LET mx=FN r(28)+1: LET my=F
N r(18)+1: IF ATTR (my,mx)<>15 T
HEN GO TO 320
 330 IF ABS (mx-cx)^2+ABS (my-cy
)^2<9 THEN GO TO 320
 340 LET dx=SGN (RND-.5): LET dy
=SGN (RND-.5)
 350 IF ATTR (my+dy,mx+dx)<>15 T
HEN GO TO 340
 360 PRINT AT my,mx;"b"; REM b i
s graphic b
 370 LET md=0
 380 PRINT AT 0,2; INK 7; PAPER
0;"Score: ";sc;AT 0,16;"Best: ";
hs
 400 LET py=my+dy: LET px=mx+dx:
 LET md=md+1
```

```
 410 IF ATTR (py,px)=55 THEN GO
TO 440
 420 IF ATTR (py,px-1)=55 THEN L
ET px=px-1
 430 IF ATTR (py,px+1)=55 THEN L
ET px=px+1
 440 IF px=2 OR px=29 THEN LET d
x=-dx
 450 IF py=2 OR py=19 THEN LET d
y=-dy
 460 IF ATTR (py,px)=55 THEN LET
 cc=cc-1: BEEP .2,35
 470 PRINT AT my,mx;" ";AT py,px
;"b": REM b is graphic b
 480 LET mx=px: LET my=py
 490 IF cc=0 THEN GO TO 9000
 500 IF mx=cx THEN IF my=cy THEN
 GO TO 8000
 505 IF md/2=INT (md/2) THEN BEE
P .1,30: GO TO 400
 510 LET px=cx+(INKEY$="m")-(INK
EY$="n")
 520 LET py=cy+(INKEY$="z")-(INK
EY$="a")
 530 IF ATTR (py,px)=15 THEN GO
TO 560
 540 LET py=cy: IF ATTR (py,px)=
15 THEN GO TO 560
 550 LET px=cx
 560 PRINT AT cy,cx;" ";AT py,px
;"a": REM a is graphic a
 570 LET cy=py: LET cx=px
```

Tony Hannaford

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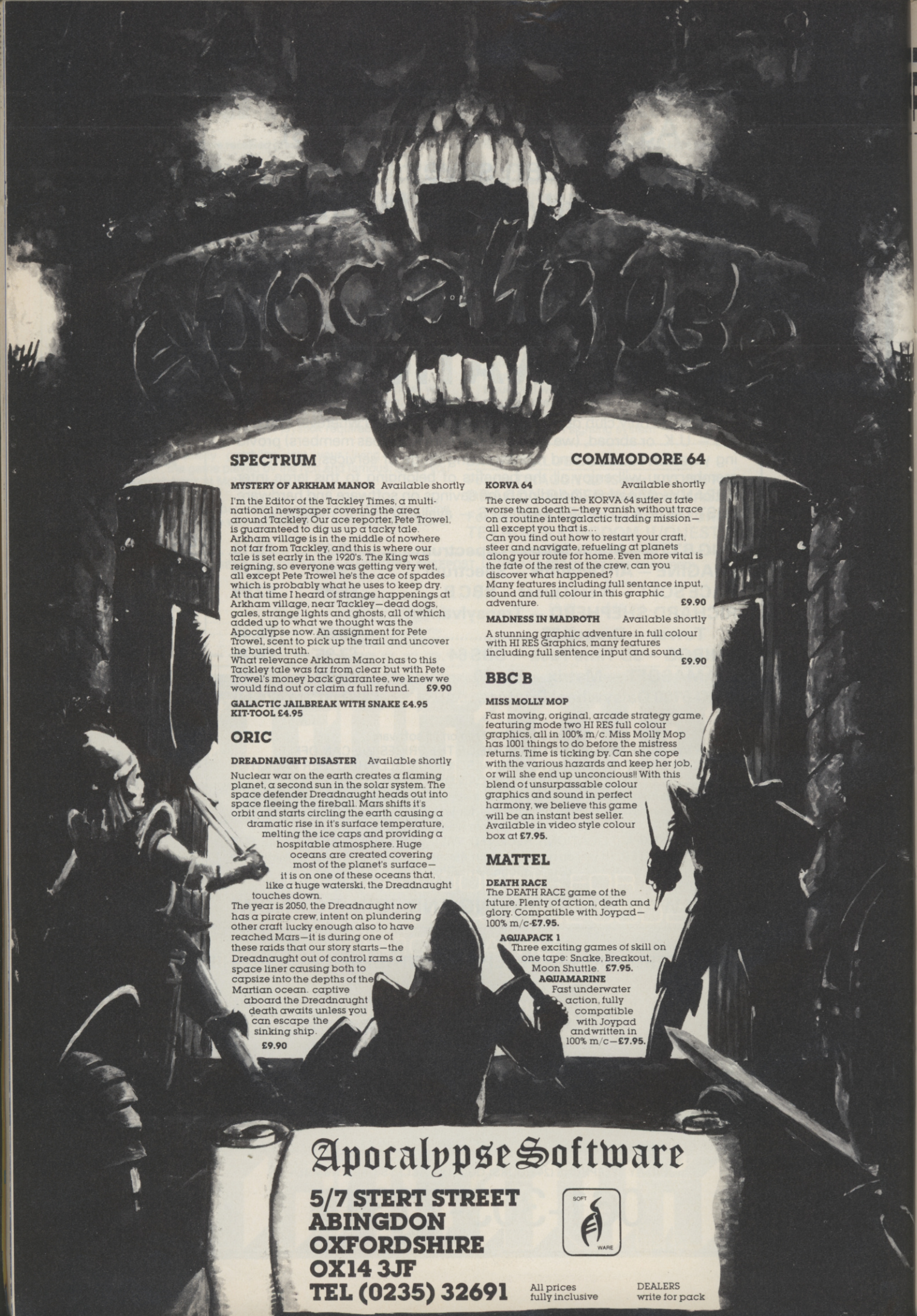

SPECTRUM

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I'm the Editor of the Tackley Times, a multi-national newspaper covering the area around Tackley. Our ace reporter, Pete Trowel, is guaranteed to dig us up a tacky tale. Arkham village is in the middle of nowhere not far from Tackley, and this is where our tale is set early in the 1920's. The King was reigning, so everyone was getting very wet, all except Pete Trowel he's the ace of spades which is probably what he uses to keep dry. At that time I heard of strange happenings at Arkham village, near Tackley—dead dogs, gales, strange lights and ghosts, all of which added up to what we thought was the Apocalypse now. An assignment for Pete Trowel, scent to pick up the trail and uncover the buried truth.
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```
580 IF mx=cx THEN IF my=cy THEN
 GO TO 8000
610 GO TO 400
7000 DEF FN r(x)=INT (RND*x)+1
7010 DEF FN m(a,b)=a-b*INT (a/b)
: REM a mod b
8000 FOR a=10 TO 0 STEP -1
8010 PRINT AT my,mx;"a": REM a i
s graphic a
8020 BEEP .2,2*a
8030 PRINT AT my,mx;"b": REM b i
s graphic b
8040 BEEP .2,2*a-1
8050 NEXT a
8060 IF md>180 THEN GO TO 320
8070 LET sc=10*INT ((sc+450-2.5*
md)/10)
8080 GO TO 320
9000 PRINT AT my,mx;" ";AT cy,cx
;" "
9010 INK 7: PAPER 0: FLASH 1
9020 PRINT AT 10,13;"GAME";AT 12
,13;"OVER"
9030 PLOT 96,69
9040 DRAW 48,0: DRAW 0,16: DRAW
-48,0: DRAW 0,-16
9050 PLOT 96,84
9060 DRAW 48,0: DRAW 0,16: DRAW
-48,0: DRAW 0,-16
9070 FOR a=1 TO 750: NEXT a
9080 FLASH 0: CLS
9090 PRINT AT 11,10;"Score: ";sc
9100 PAUSE 100
```

```
9110 IF sc<hs THEN PRINT AT 17,8
;"High score: ";hs: GO TO 9900
9120 CLS : FOR a=21 TO 1 STEP -1
9130 PRINT AT a,0;"a";: REM a is
 graphic a
9140 NEXT a
9150 FOR a=0 TO 10 STEP 2
9160 FOR b=a TO 31-a
9170 PRINT AT a,b;"a";: REM a is
 graphic a
9180 NEXT b
9190 FOR b=a TO 21-a
9200 PRINT AT b,31-a;"a";: REM a
 is graphic a
9210 NEXT b
9220 FOR b=31-a TO a+2 STEP -1
9230 PRINT AT 21-a,b;"a";: REM a
 is graphic a
9240 NEXT b
9250 FOR b=21-a TO a+2 STEP -1
9260 PRINT AT b,a+2;"a";: REM a
is graphic a
9270 NEXT b
9280 NEXT a
9300 FOR a=0 TO 41
9310 PAPER FN m(a,8): INK FN m(a
+4,8)
9320 PRINT OVER 1;AT FN m(a,22),
0;TAB 31;" "
9325 BEEP .04,a
9330 NEXT a
9340 POKE 23692,255
9350 PAPER 2: INK 7
9360 FOR a=1 TO 25: PRINT : NEXT
 a
```

```
9370 PLOT 47,46: DRAW 155,0,PI/3
: DRAW 0,75,PI/3: DRAW -155,0,PI
/3: DRAW 0,-75,PI/3
9380 LET a$="CONGRATULATIONS"
9390 LET b$="NEW HIGH SCORE!"
9400 LET a$=a$+a$: LET b$=b$+b$
9410 INVERSE 1
9420 FOR a=1 TO 16
9430 PRINT AT 10,8;a$(a TO a+14)
;AT 12,8;b$(a TO a+14)
9440 BEEP .4,a*2
9450 NEXT a
9460 INVERSE 0
9470 LET hs=sc
9900 INPUT "Another game -y/n ?
";a$
9910 IF a$<>"y" AND a$<>"n" THEN
 GO TO 9900
9920 IF a$="n" THEN STOP
9930 INK 7: PAPER 1
9940 GO TO 230
```

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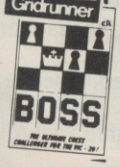

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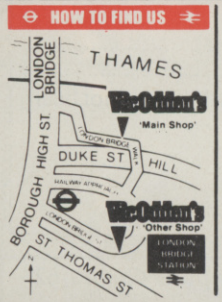

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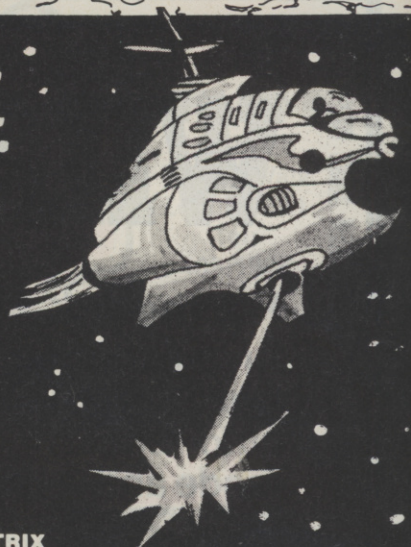

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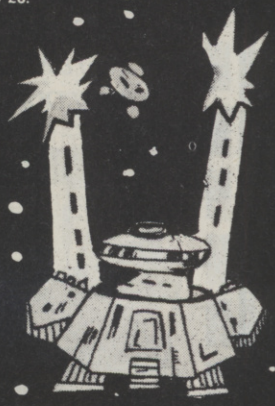

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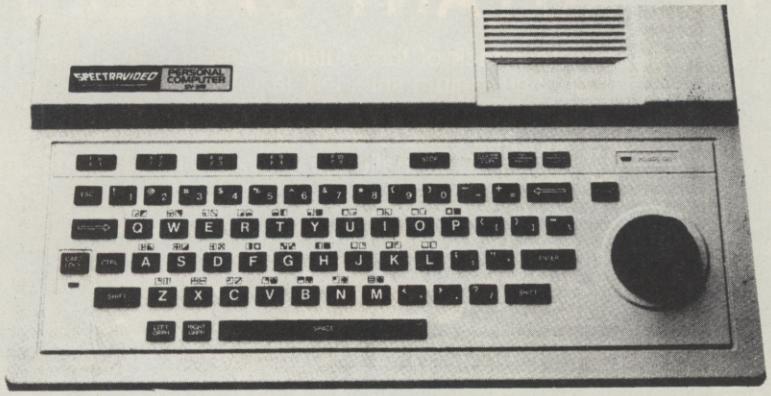

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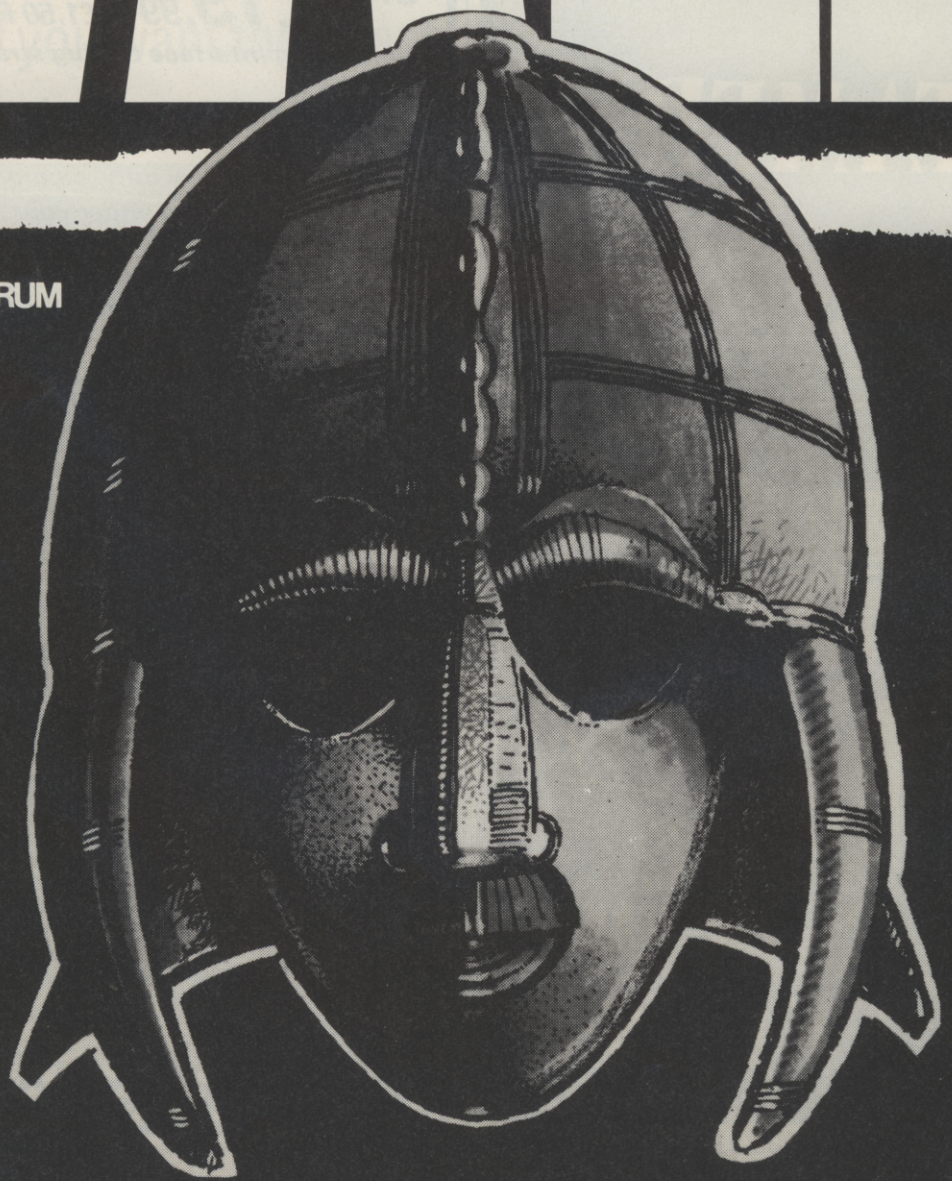

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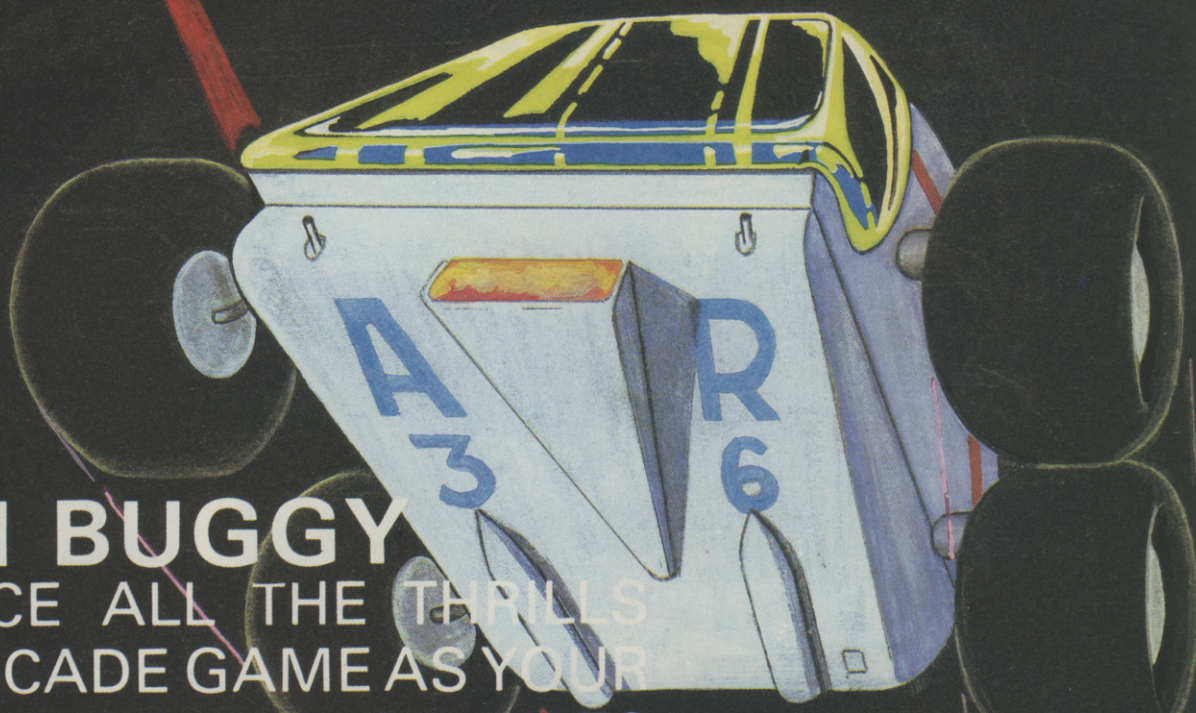

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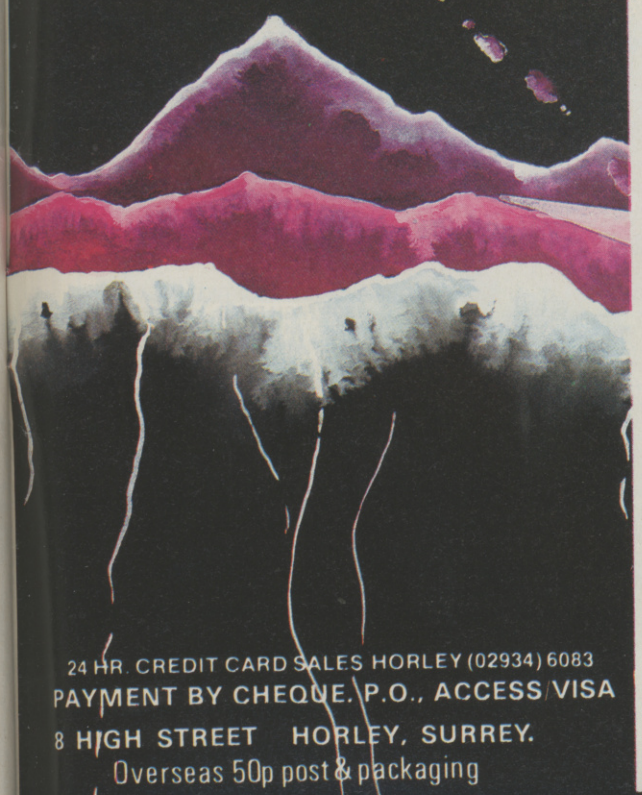

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A game for the arcadians with four screens. After landing your craft on Xeno and avoiding the asteroid belt, you have to fight your way through three sets of maze manned by robots with lethal firing power and hunter instincts. The third stage requires the destruction of the alien craft dropping plasma bombs.

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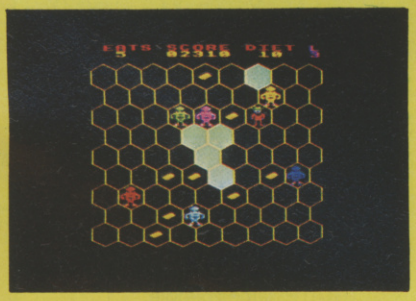
GUY IN THE HAT



You are THE GUY IN THE HAT entombed in a honeycomb labyrinth. Like BANANA MAN you have an increasing daily food diet, but this time your favourite snack is a BICKIE. Beware of the pursuing BICKIE BASHERS that are trying to ensnare you. Gain extra points by dropping your exploding hat and trapping the BICKIE BASHERS. Movement in 6 directions, HYPERLEAP and **menacing sounds are included along with the usual great** graphics and high-score table.

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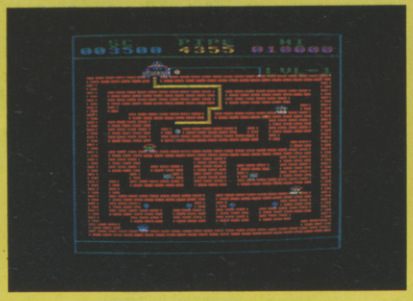

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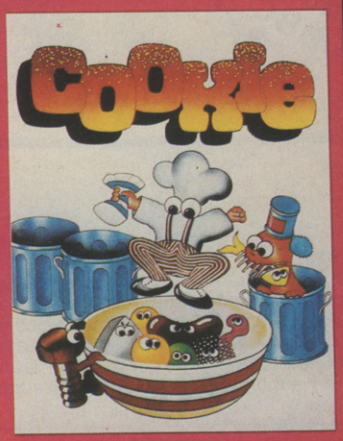

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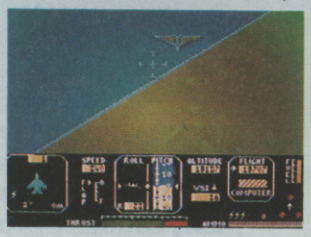

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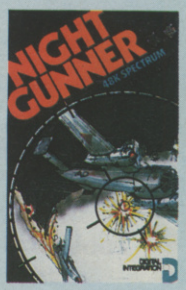

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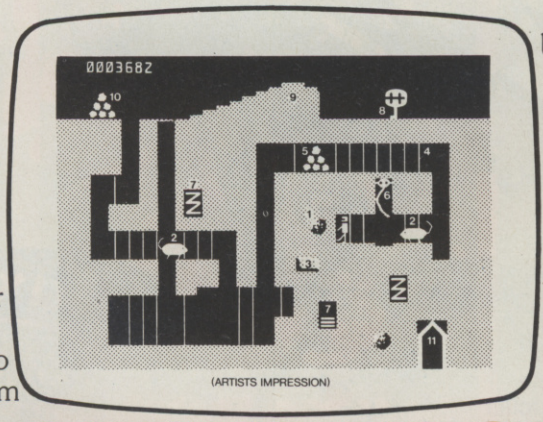

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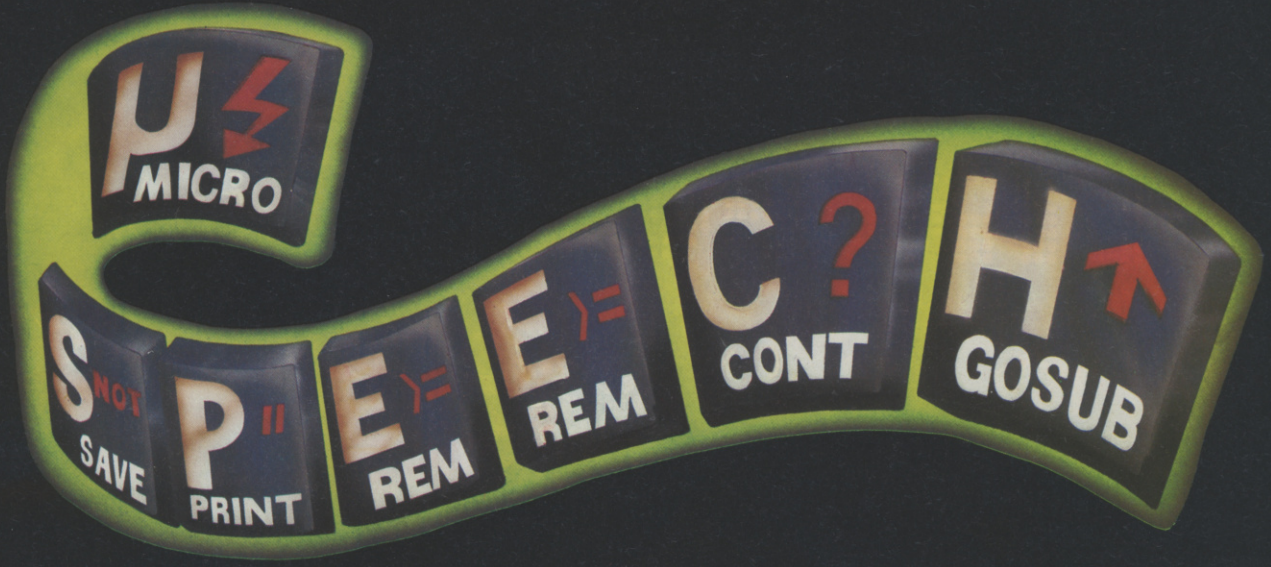

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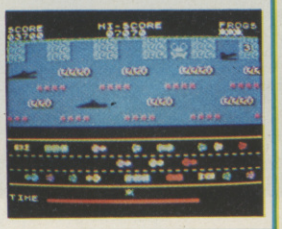

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... there was no escape, he had to enter the Vortex and bet on his skills! He grabbed the manual controls and with determination fired both upper deck guns...
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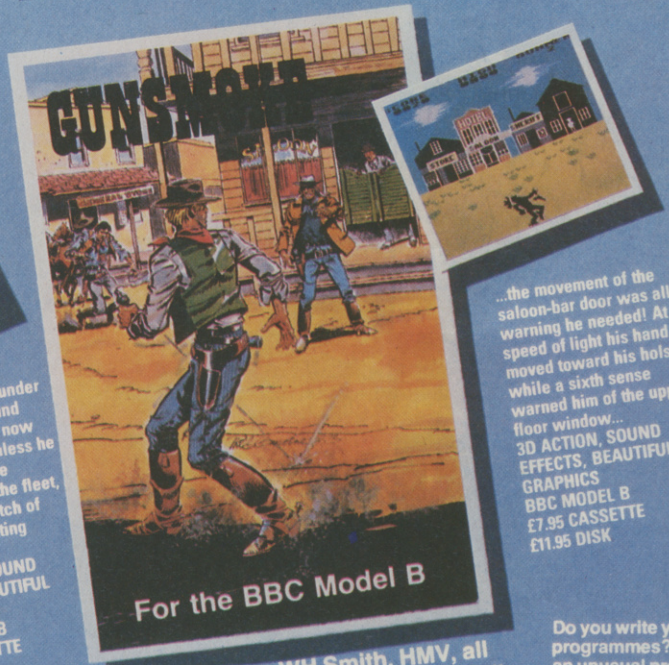

...the movement of the saloon-bar door was all the warning he needed! At the speed of light his hand moved toward his holster, while a sixth sense warned him of the upper floor window...
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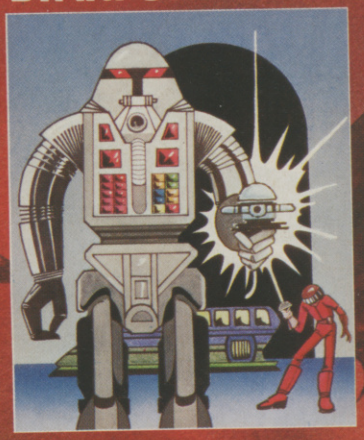

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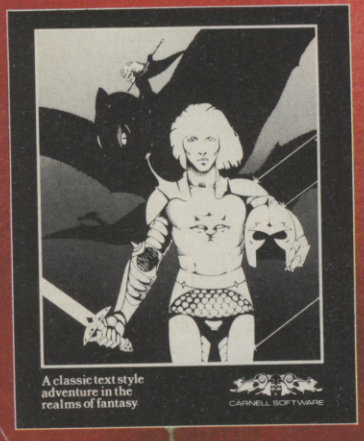

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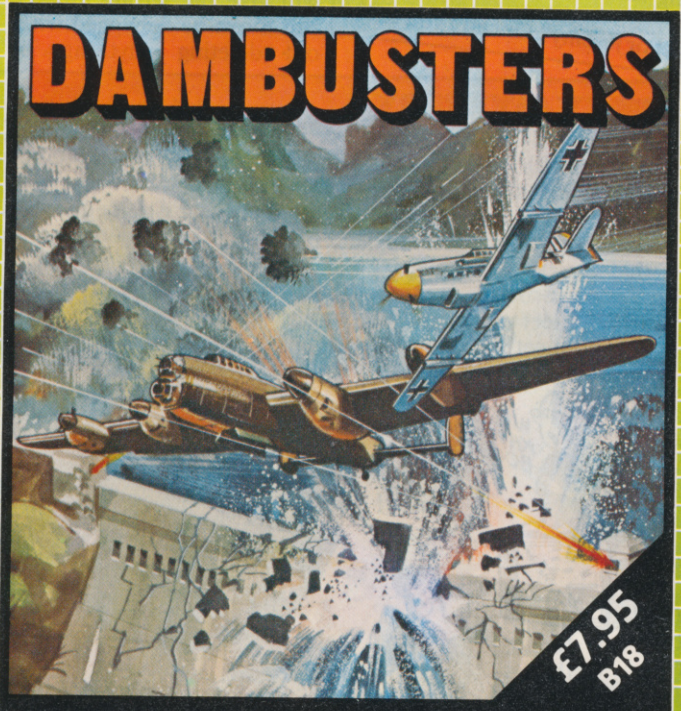

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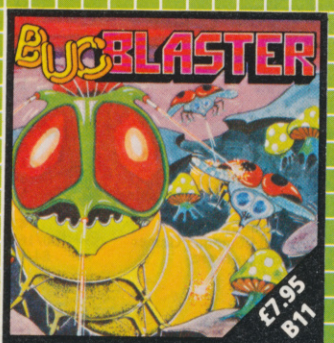

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PUZZLES • PUZZLES •

BRAIN PENETRATOR

The president, secretary and treasurer of three computer clubs (nine people in all) each play a game of *Penetrator* on their Spectrums. Harriet is the highest scorer from her club, but her total is lower than those of the highest scorers from the other two clubs.

Jeremy gets the lowest score of any president, but it's higher than those of the lowest scoring secretary and treasurer. No two people scored the same.

So who scored higher – Harriet or Jeremy? Or can't you tell?

BUG SPOTTING

Take a squint at the program below. It's a badly written attempt at getting the computer to add together all the numbers from one to 100.

As it stands, the program will give the wrong answer. But it can be debugged without deleting anything, by simply inserting a single character or number. How?

```
10 REM (T= running total, N
varies from 0 to 100.)
20 LET T=0
30 LET N=0
40 LET T=T+N
50 LET N=N+1
60 IF N<100 THEN GOTO 40
70 PRINT "TOTAL="; T
```

PEEK PUZZLE

'I've just bought a Spectrum,' said Alexander, 'and I can't work out how you enter the commands PEEK and POKE.'

'It's simple,' said Belinda with a smirk. 'Each use a single key. PEEK and POKE are KEYS.'

'By jove, you're right!' exclaimed Alexander, after a second's thought. 'PEEK and POKE *are* keys. Look!' He wrote out an addition sum like this:

```
  PEEK
+POKE
  KEYS
```

'You just have to substitute each letter for a different number. And if K is greater than E, there's only one solution.'

What is it?

INKY MYSTERY

A piece of computer printout is, for some stupid reason, painted with ink and pressed on to another sheet the same size so that both sheets are marked with the ink all over.

Now, even more pointlessly, the first sheet is folded several times into a smaller shape and placed on the second sheet so that no part of it overlaps the edge.

The question is, is it inevitable that at least one point on the folded sheet will still be directly above the mark it made on the second sheet? Can you prove it?

If you can invent a puzzle to do with computers or computer games why not send it to us? You'll win a free program if we publish it! Send to: Puzzles, Personal Computer Games, Evelyn House, 62 Oxford Street, London W1A 2HG.

ADVENTUROUS ANAGRAMS

By unjumbling the clues below you can produce characters or animals which you could come across in an adventure game. Some letters have already been put in the right places to help you.

```
(1)____G___      THINK
(2)_______N__    PRESET
(3)____L___      IN BOG
(4)_____O__      GRAND
(5)__I_____      TANG
(6)__A_____      GLEE
(7)____I_____
                 I NAG MAC
(8)__P_____      DRIES
```

ANSWERS AT THE BOTTOM OF THE PAGE

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PEEK PUZZLE

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7421

ADVENTUROUS ANAGRAMS

1. KNIGHT 5. GIANT
2. SERPENT 6. EAGLE
3. GOBLIN 7. MAGICIAN
4. DRAGON 8. SPIDER

BUG SPOTTING

Insert an 'equals' sign in line 60 so that it reads:

IF N<=100 THEN GOTO 40

BRAIN PENETRATOR

Harriet. If she and Jeremy are in the same club it's obvious. If they aren't, suppose the president of Harriet's club is called Ronald. Then Harriet scored more than Ronald, and Ronald more than Jeremy.

INKY MYSTERY

At least one point will still be directly above its former mate. Think of it this way. Trace round the folded up piece of paper, marking its exact shape on the second sheet.

Next unfold the paper and copy on to it the same shape in exactly the same position. If this is cut out and refolded along the same folds, it will form a smaller piece of folded paper which can be replaced in the same position which that particular bit of the paper was when it was first traced.

It can now be re-traced and the whole process repeated. If this is continued, you will get a smaller and smaller piece of paper, until eventually you will reach a piece which doesn't have any folds in it. This is the piece which was directly above its former mate. Think about it.

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48 K Oric

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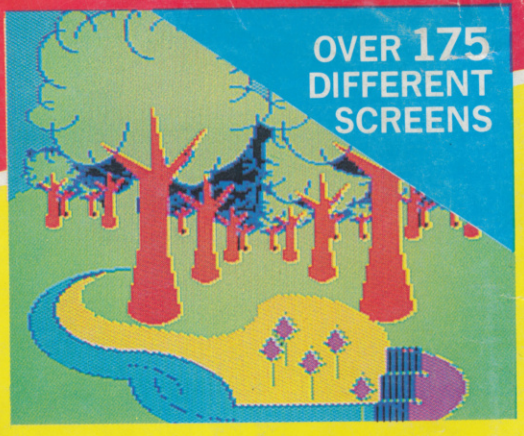

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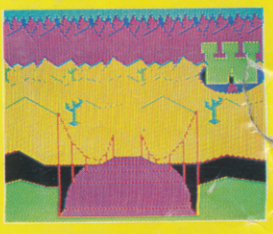

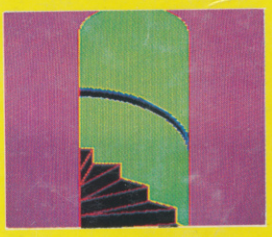

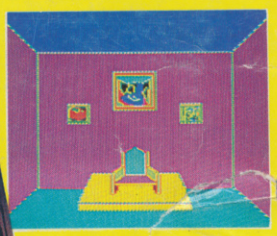

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